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The
Indian Empire

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THE INDIAN EMPIRE.

VOL. III, No. 3.—JANUARY 1891.

THE REVOLUTION IN TEA.



It is gratifying to learn from recent statistics ~~that~~ the importations of Indian and Ceylon teas into Great Britain and America are now almost equal in weight, and greater in value, than the importations of China teas. And yet the cultivation of tea in India is an industry scarcely half a century old, and in Ceylon barely ten years old. Reports show that between 1866 and 1886, the exports of China teas doubled; but in the same period the exports of Indian teas increased fourteen-fold. The consequences, actual and impending, of this revolution in the trade are causing such serious concern in China, where tea is a staple industry as well as a leading source of imperial revenue, that a special investigation into the whole subject was recently ordered by the Chinese authorities, the result of which was to show that the decline of Chinese tea in favor is chiefly in Great Britain and America—the latter country, however, takes Japan tea now, in preference to either Chinese or Indian,—for Russia, the next largest consumer, is increasing its demands, although not sufficiently so to make up for the loss of the British markets. It is also stated that the decline in favor of China teas is not due

to any deterioration in the quality of the native leaf, but chiefly to the carelessness with which it is prepared for market. The growing favour of Indian teas, on the other hand, is said not to be due to superior flavour, but to superior strength and greater care in preparation, so that a pound of it goes much further than a pound of the Chinese teas.

It is worth while comparing the systems on which the industry is conducted in the two competing countries, so as to understand how the great revolution in the trade has been accomplished. In China, tea is grown for the most part in small gardens farmed by those who own them; generally men of little or no capital with which to obtain fertilizers and to renew the plants from time to time. The "picking" is done by the family of the grower; but in the height of the season extra hands have to be employed. To economize this expense, the picking is pushed forward, and the plucked leaves are allowed to stand until the picking is finished, whereby they suffer greatly in quality. A consequence of this manner of proceeding is that the leaves are not evenly "withered" when the process of manufacture begins.

In India, on the other hand, the tea is grown in large gardens, sometimes covering thousands of acres, superintended either by the owner himself or by a skilled agent. In the Assam district the gardens are in the alluvial valleys of the large rivers, and many of them are formed of ground reclaimed from the primeval jungle, with all the richness of a virgin soil. The plants are grown from selected seed, and the indigenous plant has been found superior to the China plant, which was at first favoured. The labour is all done by coolies, brought from the Central Provinces and elsewhere at considerable expense, and the wages are high—for India. But with efficient, although costly, labour the greatest care is practised in cultivation, digging, weeding, etc., and especially in the delicate work of plucking. The exact moment to begin picking is determined by the overseer, and the leaves have to be removed in such a way as to cause no injury to the plant. If a leaf be carefully plucked, another will follow in about a fortnight; but if done

carelessly, the branch may be rendered barren for the rest of the season. Close and constant supervision by European managers and assistants is thus necessary, and by this means the Indian planters get some sixteen successive pickings in one season; while the Chinese get only four. Moreover, in the Indian gardens, when the leaves are plucked, they are at once started on the course of "making," and are not left to lie about as in China; so there is no deterioration.

Each picking of a garden is in India called a "break," and in China a "chop." But an Indian "break" is rarely above a hundred chests, and is often only twenty, and it is absolutely even in quality throughout; whereas a Chinese "chop" may be run up to several hundred chests or half-chests, purporting to be of even quality, but made up of many pickings from different gardens, producing a mixture which is not uniform; at the expense of the deterioration of the better leaves.

In India, each day's picking is immediately "withered," and when perfectly and evenly withered, is "rolled" lightly by a machine. In China the withered or partly withered leaves are put into small cotton bags, loosely tied, and placed in wooden boxes, the sides of which are pierced with numerous holes. A man then gets into the box and presses and kneads the bags with his feet, with the object of both rolling the leaves and expressing the moisture.

Next comes "fermentation." In India, this is done in the open air, without any extraneous aid; and it is part of the skill of the planter to know the exact moment when to arrest the process, for immediately the proper point is reached, the tea must be "fired." In China, after the jumping process above described, the tea is placed in baskets and covered up with cotton or felt mats, so as to retain the heat and hasten the fermentation. After it has stood thus covered up for a certain time, it is taken out and "fired." This firing is one of the most important of all the processes, and requires great skill and care. The Indian planter is most particular to see that only the very best hardwood charcoal is used, and that the tea is so constantly turned over that there is no chance of any of it getting

burned. A single basket of burnt leaf will spoil a whole "break." In China they often make the tea "smoky" by using ill-made charcoal, and sometimes "tarry" by firing with soft woods like fir and pine. The "tarry" flavor, it is said, will often not develop until long after the tea has left China; and some waters bring it out more disagreeably than others.

The following is, or should be, the process of "firing" by the charcoal system: After the fire is ready, a tubular basket, narrow at the middle and wide at both ends, is placed over it, and into this tube a sieve is dropped, covered with tea-leaves, shaken on it to about an inch in thickness. The leaves have to be carefully watched while the sieve is over the fire; and after about five or six minutes they are removed and rolled. As the balls of leaves come out of the hands of the roller, they are placed in a heap on the floor; and when all have been thus manipulated, they are shaken on to the sieves again and set over the fire for a few minutes longer. They may even sometimes be rolled and fired a third time until the leaves have assumed the right dark colour. When the whole batch has been thus treated, it is placed thickly in the baskets and again put over the fire. The attendant makes a hole with his hand through the centre of the mass, so as to allow vent to the heat as well as to any smoke or vapor from the charcoal, and he then covers it over with a flat basket. The heat of the fire is then reduced, and the tea is allowed to remain over it until perfectly dry. It has to be constantly watched and frequently stirred, to ensure equal heating. When the firing is done, the black colour of black tea should be well established, although it afterwards improves in appearance. The tea is then winnowed and sifted through various sieves, to divide it into the different kinds.

In India, however, another process for firing tea has been introduced of late years. It is called a "Sirocco," and is a machine for applying hot air, which is superseding the charcoal process. It is rapid in its work, and is said to be superior in many ways. The leaf is laid out on wire-gauze trays, which are passed through the hot-air machine at a temperature of three hundred degrees, and in from fifteen to twenty minutes

the tea is thoroughly fired. It is then placed in the "sifters," which are worked by machinery with either a lateral or rotatory motion, and the different grades are sifted out, such as Dust, Broken Pekoe, and Pekoe. The larger and coarser leaves which do not pass through the sieves are cut to an even size and classed as Pekoe Souchong.

The Hankow Commissioner of Customs declares that the method practised in China of rolling and squeezing the leaves before fermentation, goes a long way to account for the large quantities of inferior teas which are sent into the market—of good leaf spoiled.

The weakest part of the Chinese system, however, seems to be in getting the tea to market. In India everything is done on the garden, from the picking to the packing ready for shipment in properly branded "breaks." But in China the grower does not prepare the tea for market; he brings it up to a certain stage, and an intermediary "tea-man" has to complete the work at his convenience. Thus the tea is often exposed to the influence of the weather before it gets into the lead-lined chests. The "tea-man" lives mostly in Hankow, Shanghai, or Canton; and about March or April he starts up-country well supplied with copper "cash." At some suitable point for shipment he has a central "hong" or factory, and "godown" or warehouse; thence he despatches his agents in all directions, and they scatter sub-agents all through the tea-districts to collect the leaf from the growers. It is gradually brought in to the "hong" in bags, and may be for days on the road, exposed to the weather, thus imperfectly covered. When enough is collected at the "hong," the tea-man proceeds to pick and refine it. By means of a revolving sieve, the larger leaves and the smaller are separated; then come mixing and blending, so as to produce an average appearance for different "chops;" and then it is packed for market.

One of the complaints is, that this packing is very carelessly and roughly done in China, to the further injury of the delicate leaf. The coolies are said to tread it into the boxes with their feet—not always bare—with a total lack of discrimination,

and with such amount of pressure as to produce a large proportion of Dust. The Commissioner at Wuhu reports: "Instead of the tea being packed carefully, it is rammed down hard, and is put into the chests while still hot. Hastily packed and heavily pressed down, the tea cannot possibly escape injury; and being put in and covered over while hot, it becomes damp when it gets cold. While hot, the tea is very brittle, and gets broken very easily, yielding in consequence a large percentage of Dust. The object of packing the tea while hot is to enable it to retain its aroma, so that when the chests are opened there may be a fragrant odor emitted. The aroma is there, no doubt, but at the expense of the tea, which suffers in consequence. The tea, after being fired and packed, is conveyed part of the way in wheelbarrows and part of the way by boat. It is handled roughly *en route*, and being protected by a few mats only—and these hastily thrown together—it gets wet. No notice, perhaps, is taken of this circumstance, and hence the tea gets ruined."

Shanghai merchants complain of the quality of the teas manufactured in the Ningpo district under the name of Pingsueys. Some of the dealers, they say, do honorably make and supply pure tea; but the majority mix "spurious rubbish" with the good leaf, and color it to look like the genuine article. One of the least harmful forms of adulteration is tea-powder mixed with congee and rolled into pillules, to sell as "Gunpowder;" but in many cases all sorts of foreign and even injurious substances are introduced.

In Foochow, we find the European merchants complaining of the frauds of "tea-men" selling a "chop" of inferior stuff by a false sample of good quality. But a more serious matter, as more difficult of detection, is the large admixture of what is called "Lie Tea"—that is to say, leaves other than tea-leaves—and the employment of congee or rice-water, tea-dust, and soot, and other deleterious substances, in the manufacture of locally packed teas. Even the expert is often unable to discover the presence of "Lie Tea" in the finer grades, so cleverly is the fraud manipulated.

To come back to India: We find a very different system in vogue. The moment the tea is ready, it is packed—loosely, and never pressed, but shaken down—in strong air-tight boxes and shut up at once from atmospheric influences. No leaves are broken in the packing, and no Dust is made in the chest; indeed, many planters pass the tea carefully through a sieve before packing, so as to remove whatever Dust may have formed in the previous processes. Every chest is honestly and faithfully what it professes to be, and every box in a “break” is precisely the same as the rest in the “break.”

Here then we have the secret of the decline in favour of China teas, and the rapid ascent of Indian teas in markets where sterling quality is so quickly appreciated. In this country a single garden will contain thousands of shrubs, the products of which are picked, withered, rolled, fired, packed and despatched in one spot, and under one watchful, experienced and faithful supervision. In China it will have been noted, from the facts disclosed in the investigation under notice, everything is the reverse; and although labour is cheaper there than here, there are so many profits to intermediaries, so much handling, and such taxation, that the ultimate cost is greater than that of our own teas, which go a great deal further. The foregoing facts are instructive, and serve to show that honesty is, after all, the best policy in the long run. *

SCIENCE NOTES.



MATHEMATICS FOR THE MILLION.

(Translated.)

ATHEMATICAL problems are in a measure akin to puzzles. There is something exciting in the boldness with which our understanding is challenged to prove its strength, and it imparts a feeling of satisfaction to unravel mysteries which have for a time baffled our efforts. Such mental exercises have in all

ages been attractive to both young and old, and for this reason we think our readers will be amused by some reflections concerning an algebraic quantity which has cleverly been designated "Whew!" It consists of three 9's, the second as the exponent of the first, and the third as the exponent of the second, which means that 9 shall first be multiplied 9 times by itself, *viz.* : $9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9 \times 9$, giving the number 387, 420, 489. The product thus found indicates how many times 9 a second time is to be multiplied by itself; but what 9 multiplied 387, 420, 489 times by itself gives as a product is not so easily figured out as the former multiplication. It would require 369,693,100 ciphers, and to count it, working ten hours daily, would take fifteen years and 230 days, not to mention the time passed in computation. Scientists tell us there are infusoria so small that 40,000,000,000 of such are found in one cubic inch of water. A ball the size of the globe would contain 2,429,093,000,000,000,000,000,000,000,000,000,000,000,000, or two sextillions four hundred and twenty-nine thousand and ninety-three quintillions of such

animals. But this number is far from being "Whew." A ball that should be able to hold "whew" of the infusoria here mentioned, at the rate of 40,000,000,000 to the cubic inch of water, would contain an inconceivable number of globes, for the distance between the surface of such a ball and its centre would require 554,539,612 ciphers for its expression in miles. How great a length such a number of miles would have can be seen from the following comparison :

Light travels 192,000 miles a second, thus using eight minutes and thirteen seconds to traverse the distance from the sun to the earth. But to accomplish the distance from the surface of the aforesaid ball to its centre light would need a number of years written with 123,231,012 figures.

Still another relation may serve to show "Whew's" crushing dimensions. Light accomplishes in every second about five hundred billions of oscillations, a number so great that the loudest note ever measured, which makes 36,000 vibrations in a second, must sound 440 years to perform so many vibrations. But although in order to traverse the radius of the abovementioned ball, light would require this vast number of years, yet it does not more than infinitesimally approach the "Whew" vibrations.

The story of the inventor of the game of chess is well known. The King of India bade him name his own reward, upon which he asked to receive the number of grains of wheat that would be produced if one grain of wheat were paid him for the first square of the chess-board, two for the second, four for the third, eight for the fourth, and so on, doubled up for every square of the sixty-four. When these amounts were added the sum was found to be 18,446,744,073,709,551,615 of grains, or in other words such a quantity that therewith all the continents of the earth could be covered with a layer one-third of an inch in thickness, and that if the same ground were sown with wheat in the proper manner it would take more than seventy years to produce the above amount of wheat, which is equal to thirty-four billion bushels.

One stands aghast before this number, and still it is next

to nothing as compared with "Whew," for if we were in the same manner to double up the amount until it reached "Whew" number of grains, the chess-board, instead of having 64 squares, must have 1,228,093,894 squares, in which case if each square had one square inch of surface the space covered would be an area equal to 193 acres.

We once saw some calculations, less indeed in proportion than "Whew," yet of a character not less astounding, in which numbers hardly to be conceived were made in a measure comprehensible by being compared with quantities of a more familiar nature.

For instance, if one cent. were set out at compound interest in the year 1 at four per cent., on the 1st of January, 1866, it would amount to 1 quintillion 201,458 quadrillions 332,000 trillions of dollars. If we were to take this sum as a capital and would use its yearly interest (four per cent.), then the income tax we should have to pay at the rate of one per cent. would be 480 quadrillions 583,320 trillions of dollars. If we paid the Tax Collector this sum in silver, he would need 3,003,645,000,000,000,000,000 wagons for its transportation. Provided the whole earth's surface, both land and water, were peopled as closely as possible, we should have but 1-2,000,000 part of the drivers required, and the line of wagons would have a length of 8 trillions 442,000 billions of miles. The speed of light, as mentioned, is 192,000 miles per second, and it would take 743,600 years to reach the Collector, beginning at the furthest wagon, if he, to have better control of the wagons on both sides, stationed himself in the centre of the line. Again a robbery could be committed on the hindmost wagon, which would not be discovered till the 24,780 generation of Tax Collectors. If, on the contrary, instead of using the interest of the capital—the bulk of which, by the by, in gold, would be equal to 44 globes—this capital were distributed among the people of the earth, each one of its 1,000,000,000 of inhabitants would receive about 1,200 trillions of dollars to live on, and could every second use 2,000,000 for 38,096,000 years without reaching the bottom of his purse.

Again, in another place, in an article on anagrams or transpositions of letters, similar examples are given as to the rapidity with which numbers will increase. We find, then, that two letters can be changed 1×2 times; 3 letters $1 \times 2 \times 3$ or 6 times; 5 letters $1 \times 2 \times 3 \times 4 \times 5$, or 120 times; which is enough to illustrate the point. The transpositions grow in number so quickly that while, for instance, the word "Dame" can be subjected to the following: Dame, daem, dmae, dmea, deam, dema, adme, adem, amde, amde, aedm, aemd, mdae, mdea, made, maed, mead, meda, edam, edma, eadm, eamd, emda, emad; the word "periodical," that contains ten letters can be transposed 3,628,800 times, and twenty-four letters can be changed 620,448,401,733,239,439,360,000 times, all of which changes, according to Euler, could not be written by the population of the whole world in 1,000 years if each one were to write forty pages with forty transpositions on each.

When King Stanislaus, of Poland, then a young man, came back from a journey, the whole Lescinskian House gathered together at Lissa to receive him. The master of the school, Jablowsky, prepared a school festival in commemoration of the joyous event, and had it end with a ballet performed by thirteen students, dressed as young cavaliers. Each had a shield, upon which one of the letters of the words "Domus Lescinia" ("The Lescinskian House") was written in gold. After the first dance they stood in such manner that their shields read "Domus Lescinia;" after the second dance they changed order, making it read: "Ades incolumnus" ("Unharm'd art thou here!"); after the third: "Mane sidus loci" ("Continue to be a star for the country"); after the fourth: "Sis columna dei" ("Be a pillar of God"); and finally: "I! scande solium!" ("Go, and ascend thy throne!") Indeed, these two words allow of 1,556,755,200 transpositions, yet that four of them convey independent meanings is certainly very curious.

If we pass from the sphere of letters to other objects, we are struck by the strange discovery that twelve persons can interchange their respective positions 479,001,600 times, which number of changes it would take them not less than 1,848 years

to accomplish if they moved once every minute for twelve consecutive hours daily.

Card-players who are continually bewailing their ill luck of always receiving the same poor cards, will perhaps be reassured by knowing that the fifty-two cards, with thirteen to each of the four players, can be distributed in 53,644,737,756,488,792,839,237,440,000 different ways, so that there would still be a good stock of combinations to draw from, even if man, from Adam's time, had devoted himself to no other occupation than that of playing at cards.

Unbelievers, who, if not able to master the foregoing assertions, cannot, even in the face of mathematics, refrain from shaking their heads with a doubt as to their correctness, we shall, in conclusion, soothe with an experiment of whose correctness they can convince themselves, with a small amount of patience. In the following combination the sentence, "Prove it by counting" is read from the middle "P" towards the four "g's" in the corners, in many different ways—45,760, if mathematics are to be trusted.

g n i t n u o C y B y C o u n t i n g
 n i t n u o C y B t B y C o u n t i n
 i t n u o C y B t I t B y C o u n t i
 t n u o C y B t I e I t B y C o u n t
 n u o C y B t I e v e I t B y C o u n
 u o C y B t I e v o v e I t B y C o u
 o C y B t I e v o r o v e I t B y C o
 C y B t I e v o r P r o v e I t B y C
 o C y B t I e v o r o v e I t B y C o
 u o C y B t I e v o v e I t B y C o u
 n u o C y B t I e v e I t B y C o u n
 t n u o C y B t I e I t B y C o u n t
 i t n u o C y B t I t B y C o u n t i
 n i t n u o C y B t B y C o u n t i n
 g n i t n u o C y B y C o u n t i n g

That there is a rich variation of the different directions in which this can be done is readily seen ; whether, on the other hand, the variations are so numerous as the above number indicates, is a matter about which our readers may satisfy themselves by counting.

A DACOIT EXPERIENCE.

WE have all heard of the dacoits in Burma, but many have not been in the country and have not been scared by them. Well, I will just relate to you how we were once scared in Upper Burma.

It was just shortly after the annexation of the recently-conquered kingdom that I had the misfortune to be transferred to the Chindwin District, one of the largest divisions of Upper Burma, at that time infested with the most notable gangs of dacoits and their leaders. I was serving on one of the gunboats, a two decked stern-wheeler, armour-plated and fitted with the new Gardner and Nordenfeldt quick-firing guns, which was sent up the Chindwin River to do duty in forming stations and to keep order on the river for the good of the peaceful settlers, who were being continually harassed.

We had entered the Chindwin River from opposite Myingyan on the Irrawaddy, and in two days reached Alôn or Alôn Myo, the head-quarters of the district, from whence we received orders to proceed up as far as practicable; taking with us a detachment of the Military Police and a guard of Goorkhas, besides our own Marines (Bombay gun-lascars). Our duty was to land parties of the Military Police at intervals, at the villages on the banks of the river where there were no regular troops stationed.

When we had deposited the last of our batch, we still proceeded and left the guard of Goorkhas at the head-

quarters of the officer in charge of the Military Police Battalion. I think the name of the station is Minsin ; at any rate, it begins with an "M." All this occupied us nearly a week, when we turned and proceeded down stream, banking every night as soon as it got dusk, and wherever we could get a safe spot. The first day we hauled in alongside a dense jungle for the night, as we were now in the Chindwin Valley and had nothing but miles of jungle before us. As usual we posted our sentries, now only composed of our Bombay crew, armed with cutlasses and carbines ; the district being so unsafe that these precautions had to be taken in order to avoid a surprise. We would extend a gangway from the vessel to the bank, and place two sentries at each end ; while on shore, at intervals of 25 yards, a man would be stationed, thereby penetrating right into the jungle, so that if there were any dacoits loitering about, the alarm could be given on board in less than a second. These poor fellows, not being used to field service and such treatment, were scared and every hour expected a surprise. I myself was to a certain extent scared to see the suspicious-looking spot we had anchored at, and was, to tell you the truth, restless and uncomfortable, so I would get up almost every hour. At one hour in the night I got up and went to see how the sentries were faring, when, to my surprise, I saw them all clubbed together, at the end of the gangway ; fear had brought them together ; fear had taken hold of the men, and not anything would make them extend in open order again. However, as good luck would have it, we were not visited by dacoits that night, for if we had, I think we would all have had our throats cut.

We hauled off the next morning, proceeding down stream, and banked that night at a village called Pongbyin, where there was a handful of Military Police, the same batch we had deposited on our way up. There was also a European officer and a Military officer who had come up by launch on inspection duty at the village ; they hearing, or rather seeing, our vessel alongside, made for it, preferring to sleep on board than at their hut quarters among the rank vegetation, besides which they would be sure of a good dinner and a good drink.

It was a very dark night, and the men were not posted as before, except the top gangway sentry, there being the Military Police ashore. The men were amusing themselves on the lower deck, chatting, lolling, reading their Korans, etc. I was in my cabin much interested in a book. The officers, together with their two guests, had finished dinner, and were sitting over their wine on the upper deck—when all of a sudden there was a hue and cry from the men, and the *poriwallah* (sentry) below shouts, "*Dakoo ayah*" ("Dacoits have come"). On hearing this, the Commander shouts, "Heave away from shore." The Military officer runs below and summons his men to be ready, and two minutes after that the police ashore are getting ready for an encounter with the dacoits. Five minutes after there was a panic on board; no orders were attended to, and the gangway was not removed.

During this time the Second Engineer, passing my cabin, shouted, "Get your revolver ready; we'll be boarded in less than a minute." I stepped out on the lower deck, and seeing the confusion, thought that at least I'd protect myself, so off I climbed to the upper deck for revolver ammunition from the magazine, for I had none with me. When I arrived in the saloon, I thought I would have a rifle too and have a few shots from the upper deck before the dacoits came close, so I shouldered a Martini-Henri and dived my hand in for three packets of ammunition and sallied out armed to the teeth—my sword hanging, Enfield revolver in one hand, rifle in another, and my Burmese dagger, which I always carried about me.

I took up my position at the stern of the ship over the wheels, where I had the protection of a plate-iron bulwark three feet high. Here I knelt down and listened, with my face towards the direction of the noise. I could not see, for it was as dark as the inside of a cow; I could merely discern figures indistinctly, moving to and fro, and hear the din and tramping as of bare feet on the deck below. I could see one of the officers on shore with his sword drawn, trying to scan something; meanwhile our men were climbing all over the boat to hide themselves. At this juncture I opened a packet

of ammunition to load my revolver, when to my amazement I discovered I had brought three packets of Martini ball. I got desperate and flung the revolver, in my excitement, over-board, and put a round into my rifle, and had I at that moment seen anything like a Burman, I should certainly have fired.

I was not long in position, when I happened to look down before me, and saw one of our lascars on the paddle wheel holding up another man. I asked him whether he could see anything of the dacoits, when to my astonishment called out in grave disgust, "*Salib, kuch dakoo nahi, is chakra ne gir gya pani mi,*" and then began to explain, that one of the boys (pointing to the lad he held up) who was sick and on the hospital list, came to the stern of the vessel, and got down on the wheel to wash, when he chanced to slip into the water, and there being a strong tide and he not being able to swim, was clutching on to the floats and shouting in a weak voice, "I am drowning," and, thinking an alligator had hold of the boy, shouted, "*Comeer pukrar!*" which, being misinterpreted among the sleepy men down the deck, gave rise to the scare that the dacoits had come, and thus the panic.

As soon as I heard this, I, quick as lightening, placed my weapons by, got into my cabin, raised my lamp, took up my novel, and to all appearances looked as if I had never moved before.

The panic and confusion raged for over an hour before the men could be made to learn the facts, and during this time the steward passed my door, and being surprised to see me take things so calmly, assured me that the dacoits were very close and were to be seen, and entreated me to protect myself.

Shortly after I had the satisfaction of hearing a few oaths and peals of laughter, and officers and men all together returning past my cabin. They could not help noticing my position, in my *déshabillé*, and, engrossed so much in my book as not even to look up, and on being questioned, I assured them that I had never troubled my head about the rumour and noise, and thought that the look of our formidable ship was enough to keep dacoits off, which they seemed to think too; at any

rate, they thought me to be the most cool and collected man in the ship, till I had related what I had done and heard, next morning.

We laughed for a week over that night's escapade, especially over my bungling mistake with the ammunition and loss of my revolver and the men who were climbing down the funnel of the steamer to get into safety.

The offenders who were the cause of the panic were found out next day at muster and fined, and one week's liberty stopped to the whole of the crew, with extra drill and a severe warning in the shape of a lecture. I was logged for having thrown my revolver overboard, and as it was Government property, had to pay up forty-two rupees only.

P. HAMILTON.

DOLLARS AND SENSE;*

OR,

HOW TO GET ON.

[FIRST NOTICE.]

Introduction

I believe this world is in a great measure what we choose to make it, and I therefore propose to point out so far as I can, the methods that are best calculated to enable us to 'get on' in it, and obtain comparative happiness.

*P. T. Barnum.**Hotel Victoria**London January 19th 1890.*

* "DOLLARS AND SENSE;" or, *How to Get On*. By P. T. BARNUM. To which is added *Sketches of the Lives of Successful Men who Rose from the Ranks*. By HENRY M. HUNT. And an Appendix containing MONEY, WHERE IT COMES FROM, AND WHERE IT GOES TO. Copyright, by H. S. ALLEN, New York. Price, Rs. 8. Indian Agents: NEW YORK AGENCY, Calcutta, 32 Dalhousie Square, S.



THE latest production of the world-renowned showman, Mr. P. T. Barnum, cannot fail to attract the attention and interest of those who admire pluck and self-reliance in business matters, and at the same time desire to obtain an insight into the manner in which one of the most successful money-makers of the century made his various 'piles,' despite adverse circumstances of no ordinary nature. In reviewing a book of this nature, the best, in fact the only, thing the reviewer can do is to compress into as small a compass as possible the reminiscences themselves, adding such comments as may suggest themselves, illustrating the whole with such of the anecdotes and laughable incidents, with which the book is embellished, as will best serve to show the nature and scope of the whole work. This we shall endeavour to do in the following pages. To criticise the book from a literary point of view is not our intention; but we may say at the outset that there are thousands of books in existence, of greater literary and artistic pretensions, that fail to teach, in any degree, the useful lessons that may be learnt from the simple but humorous and witty narrative told by Mr. P. T. Barnum. We have only to add that the book is well got up both as regards printing and binding, before proceeding with the work in hand.

.How to get on in life is the great problem that confronts us all, whatever help may be given from the outside; it is a problem which, in the main, each must solve for himself. To make ourselves useful in our day and generation, to deserve the respect of the community, to put to the best use the talents committed to our charge—this should be the aim of all. We must be willing to work with our best endowments of mind and muscle if we would win honorable and enduring success. Work in some form, therefore, is the law of all earthly existence. We are afraid that there are few of us who come up to all the conditions herein set forth, but Mr. P. T. Barnum may be said

to have nearly attained this ideal life, and is therefore well qualified to write a work for the guidance of others. As the publishers say in their preface, "His name alone, and his wonderful career, known of all men, add great weight to his words. But the words themselves need no recommendation; they are so wise, practical, and sensible, born of a large and lengthened experience (an experience of over fifty-five years), that they carry conviction with them. The golden maxims by which he has shaped his own successful business career will, through the medium of the printed page, help to shape the lives of others."

Those who wish to know more about Barnum and his life-struggles will find the information in *Barnum's Life, and the Story of his Great Show*. The book under notice consists chiefly of a string of personal reminiscences of a man who has mingled with all sorts and conditions of men; together with a store of shrewd and kindly observations and numerous illustrations and anecdotes; marked by a dry humor which is itself irresistible.

To explain fully Mr. Barnum's theories regarding life, and how it should be used, would take up too much of our space. Broadly stated, his belief is that the world—or our particular place in it—is, as a rule, very much as we like to make it. He believes that the world is viewed from different standpoints by the two different classes that inhabit it. One class naturally looks on the bright side of life, and the other on the dark side—Optimists and Pessimists, in fact, as we know them at home. The latter class includes all the grumblers in the world; the other class takes a hopeful view of life, and looks always on the bright side. To this class belongs Mr. Barnum, and his whole life proves that he puts his theories into practice. His philosophy may be summed up as follows:—

If you would be as happy as a child, please one.

Childish wonder is the first step in human wisdom.

To best please a child is the highest triumph of philosophy.

A happy child is the most likely to make an honest man.

To stimulate wholesome curiosity in the mind of the child is to plant golden seed.

I would rather be called the children's friend than the world's king.

Amusement to children is like rain to flowers.

He that makes useful knowledge most attractive to the young is the king of sages.

Childish laughter is the echo of heavenly music.

The noblest art is that of making others happy.

Wholesome recreation conquers evil thoughts.

Innocent amusement transforms tears into rainbows.

The author of harmless mirth is a public benefactor.

I say—as the poet said of his ballads—if I might provide the amusements of a nation I would not care who made its laws.

The foundation of success in life is, says Mr. Barnum, good health. We all know that a man, when he is in ill-health, can no more accumulate a fortune than he can do satisfactory work. He has no ambition, no incentive, no force. But we think that the writer of the book under review goes out of his way when he indulges in an indiscriminate abuse of tobacco as one of the chief causes of bad health. "But," says the writer, "I speak from experience. I have smoked until I trembled like an aspen leaf, the blood rushed to my head, and I had a palpitation of the heart which I thought was heart disease, till I was almost killed with fright. When I consulted my physician, he said, 'Break off tobacco-using. Nicotine is poisoning you.'" This only proves that Mr. Barnum had 'been there' too often, and he waxes intolerant of the use of tobacco, either because he abused that use, or because his constitution was such that it was not fitted for the habit. But when the writer begins to generalize and gets clear of his hobbies, his advice is worthy of attention. The young do not look far enough into life to see that health is the uniform and regular performance of all the functions of the body, arising from the harmonious action of all its parts. By proper attention, a healthy, energetic and vigorous frame may be had in conjunction with a powerful and vigorous intellect. Science and experience alike confirm the fact that the two are not only compatible, but that

the one is in every way an aid to the other. How many, however, only discover these facts when too late. In India, for instance, they have only, comparatively speaking, recently been acknowledged, and it will be the rising, and not the present, generation that will benefit by the discovery.

One of the chief difficulties that presents itself to parents and guardians is the selection of a vocation for those under their charge, and it must be acknowledged that to this important consideration too little attention is paid. It is the writer's belief that unless a man enters upon the vocation intended for him by nature, and best suited to his peculiar genius, he cannot succeed. The author says:—"It is very common for a father to say, for example: 'I have five boys. I will make Billy a clergyman; John a lawyer, Tom a doctor, and Dick a farmer.' He then goes into town and looks about to see what he will do for Sammy. He returns home and says: 'Sammy, I see watch-making is a nice genteel business; I think I will make you a goldsmith.' He does this, regardless of Sam's natural inclinations, or genius." Against such process of selection Mr. Barnum strongly protests. He rightly maintains that there is as much diversity in our brains as in our countenances; and surely the selection of a life-vocation ought to be a matter of judgment, rather than of opportunity.

When a man gets into the right path, the next thing is to go ahead. This may seem unnecessary advice; but some men are "born tired." They can, however, cultivate these qualities. As Davy Crockett said:—

This thing remember, when I am dead,
Be sure you are right, then go ahead.

Perseverance is sometimes but another word for self-reliance, and, says our author: "Until you get so as you can rely upon yourself, you need not expect to succeed." We may see this illustrated in any sphere of life.

We need not, however, follow up in detail the steps by which fortune and fame are to be attained, as set forth by Mr. Barnum. They are mainly those by which all men who have attained eminence have ascended the ladder, *i.e.*, self-reliance, knowledge


of business and attention to that business, concentration, system, and, in the case of commercial men—advertising. As for there being “no royal road to learning,” the author scouts the idea. There may be no royal road in the common acceptance of the term, but Barnum maintains that there is a royal road both to learning and wealth. “The road that enables the student to extend his intellect and add every day to his stock of knowledge, until, in the pleasant process of intellectual growth, he is able to solve the most profound problems, to count the stars, to analyze every atom of the globe and to measure the firmament,” this he considers the real regal road, and the only road worth travelling. We shall leave to those who purchase the book the pleasure of reading for themselves the many excellent maxims and experiences that it contains, and shall in our next issue give a running commentary upon the most noteworthy reminiscences and anecdotes.

APEX.

ONE OF TOSTI'S.

"Valse-music, like two successive faces—
One dancing with smiles, one sad and tender and sweet."

—*Georges Sand.*

"ALLO! what brings you here to-night, Warren? I thought you never came to this kind of thing?"

"This is the first ball-room I have been into for years, Lawrence; I thought I would just look in before it was all over, to please little Mrs. Clifford, who sent me a very pressing invitation."

"Have you only just come, then?"

"Yes; just a few minutes ago."

"Well, I believe the next is the very last dance, so you won't get much of the fun."

"My dear fellow, I don't dance; have not danced for years," said the man called Warren.

"May I pass, please?" asked a soft voice in the background, and both men started, and stepped aside, while a woman passed, with a slight inclination of her head, into the brilliant crowd beyond. A moment afterwards Major Warren left the doorway in which he had been standing, and sauntered down the room, while his friend turned away with a smile. When Frank Warren found the vision in white, which had passed him, and for which he had been looking, his first remark was, "I did not expect to meet you here to-night."

"I am out of mourning now, you see," she replied, and handing him her programme, she added with a smile, "You are only just in time, for this is the last dance." At that moment the band struck up once more, and soon the sweet, sad strains of one of Tosti's loveliest valse came floating through the room.

The low, sweet music filled the air; "Good-bye, good-bye, good-bye," was the wail that rang through it all, and as the sad strains died away in that long, low note of farewell, Major Warren and his partner stopped, and walked out into the cool verandah. "Thank you, Miss Cathcart," said the soldier, drawing himself up, with a sigh of regret. "Do you know I have not danced for sixteen years, and that last valse was a treat?"

"I enjoyed it too," replied the girl, looking pale and tired in the moonlight which fell on her up-turned face. Then turning from him, and looking across the silent tropical garden outside, Sybil Cathcart said, "Major Warren, I have heard the story you said I was sure to hear some day; the story which was too painful for you to tell me."

"Yes, I thought you would be sure to hear it sooner or later," said the man. "And now do you understand why it is I have never asked for the thing I want most in this world?"

"I understand," was the reply.

"And if I had asked you to marry me," he continued, coming a little nearer, "would you have done so, under the circumstances?"

"No, I think not," she answered.

And for a few minutes there was a deep silence, broken at last by Frank Warren, who said, "Will you give me one of these before you go, Miss Cathcart?" and he gently touched one of a cluster of white, aromatic lilies, which nestled in the front of her dress, and the sweet scent of which haunted him for days afterwards.

"This!" said Sybil, looking startled for a moment, and glancing down at the drooping flowers; but though she detached one of the lilies from its resting-place, she did not give it up to the man before her.

"It is dead!" she said, regretfully, and with a little passionate gesture flung it out among the living flowers in the moonlight.

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In a bungalow, half-a-mile away, a woman was awaiting Frank Warren's return. The room in which she sat was luxuriously furnished, and full of many a well-remembered object

the sight of which made the woman's heart ache. "He always liked pretty things," she said to herself, getting up once more and moving restlessly about the room. Then glancing through an open door for a moment, she passed into a small bedroom. Before a large toilet mirror, she stood looking long and earnestly at the figure before her. What she saw was a beautiful woman in an evening dress of some shimmering purple stuff, with the glitter of a jewel here and there. "His favourite color," she murmured, and memory took her back to the day on which she had gone to her first ball in the character of a newly-made bride. Young as she had been then, with her seventeen years of freshness and innocence, nothing could have suited her regal style of beauty so well as the dress she had then worn. It was of deep purple velvet, rich, and soft, and lasting; and to this day she remembered every word her young lover and husband had said to her when he first saw her wearing his gift.

"How lovely you are, my darling," he had remarked. "There is not another woman in the world to compare with you. And what a beautiful dress! I shall always love this colour; no one should wear it but yourself. Has it not been worn by kings? It is the one colour for you—my queen!" And then he had kissed her so reverently, so tenderly. And now—it was all past and gone. Turning away, she walked back into the sitting-room and sat down at a small cottage-piano, which was standing open. And as Frank Warren entered the house, the same sweet air which had been ringing in his ears, ever since he had left Mrs. Clifford's rooms, came borne to his ears. Standing unseen in the shadow of a curtain, he listened in painful silence, while the woman sang her sorrowful story:

'You do not love me, no;
Bid me good-bye and go.'

She sang in her rich, sweet contralto tones, when a sound behind her made her turn round to come face to face with the man she had wedded sixteen years before.

"Frank!" was her first cry.

"Zoe! you in this country! and here?"

At first the mention of her name brought a quick, glad

light into the woman's eyes, but both the light and the flush in her cheeks died away, when she saw that her sudden appearance pained the man before her.

"You remember me, then?" she asked, haughtily, with her head thrown back in the old familiar way that he knew so well.

"Remember you!" he cried. "Is it so likely I should forget?"

"I do not know," she said, speaking more sadly this time. "It is more than fifteen years ago since we parted. I am not so young as I was, and I thought you might have forgotten."

"Where are you staying?" said Frank Warren.

"With the Dalrymples."

"And why have you come here?" he asked, pale and troubled, for even now, though he knew that the old love was dead, he could not look on this woman unmoved.

"Why have I come?" cried the woman; "to make one more appeal to your generosity, Frank. Take me back! take me back! for I cannot live without you."

"How many times have you written to me on this subject?" was the reply. "And how many times have I answered you in the only way in which I can ever answer you. I married you, loving you as —" here the speaker's voice broke, and for a moment he could not go on; then he continued, "and soon after our marriage, you made your choice, between me and —" The name in both their thoughts was left unsaid. "And I said then that you could abide by your choice," ended up Frank Warren, turning wearily away.

"And from the day you put me away from you, Frank, I have never set eyes on him," said the woman, into whose voice had crept a little wail of despair.

"Why did he not marry you?" almost fiercely asked Frank Warren, once more facing her.

"Because I would not marry him," was the answer. "Oh! Frank, I was wicked and foolish, but I loved you, and you only."

"And you left me!" put in Major Warren.

"And will you never take me back?" she asked wearily,

with her hands clasped before her in a mute appeal.

"If I did, Zoe," he replied, "we could never be happy together again, with all the past between us."

"And will you ever marry?" she asked.

"I think you know my views on that subject," he replied gravely; "I shall never marry."

"Then there is nothing more to be said but good-bye," said the woman, looking as she thought, for the last time, on the stern, handsome face so dear to her.

"Good-bye, Zoe!" he said, taking her hand in his for a moment, and then it was in silence that he put her into the hired carriage standing outside, and watched it drive away into the darkness, for the glorious moonlight was dead, and hush and gloom were over all.

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The rains had set in, fallen, and nearly run their course, when sickness laid many low in the little station of Gupabad, and the belle of the station, Sybil Cathcart, was among the victims to the deadly fever which periodically carried off some one or other. When Frank Warren heard that she was dying, he asked Mrs. Glymn, the married sister, with whom was her only home, to let him see her. Sybil said she was willing to see him, and the next moment Frank Warren was kneeling by her side.

"I have come to ask your advice," said the man, taking the girl's thin white hand in his own strong brown ones.

"What is it about?" asked Sybil.

And Frank Warren, kneeling there, told her all. Of the passionate love of his youth; of his brief married life, which lasted but a few months; of all that came after, the terrible blow of finding one unfaithful who had so lately uttered vows of fidelity to him; of the long blank years which followed, and the recent meeting with the woman who had spoilt his life; her pleadings—everything.

And Sybil, listening, understood the man she loved, better than she had done before, and loved him more than ever. "Frank," she said at last, "I am sorry for you, but far more

sorry for her, your divorced wife. She repented long ago, and has suffered for years. I can imagine how her heart must be breaking, if she loves you ; I can understand that through my own love for you. So my advice is, take her back, Frank ; take her back to your heart and home. Before I go—for the time is short now, I know—promise me to do so.”

There was a dreadful struggle going on in the man’s heart, and he could not speak.

The evening was waning, and through the half-open window came the sound of the regimental band, which was playing at the club not very far off. Suddenly Sybil Cathcart started up, saying, “Do you hear what they are playing ? I am glad to hear it again ; it is our valse.” And as the music rose and fell, she continued, speaking in a low voice more to herself than to the man beside her,

‘ You do not love me, no ;
Bid me good-bye and go.’

“ Ah ! what must it be to a woman to have to say that ? ”

“ A woman’s heart does not forget. No ; that is true, Frank. Promise me to take her back—promise ! ”

“ I promise, my darling ! ” replied Frank Warren, gently touching her hand with his lips ; and feeling alarmed at her growing weakness and pallor, he called Mrs. Glymn, who was in the next room.

Between them they laid her back gently, for she seemed to be growing unconscious ; and as the last notes of the band came wafted in on the evening breezes, Sybil Cathcart fell into the sleep that knows no waking.

MARGARET STERNDALÉ.

AMATEUR PHOTOGRAPHY IN INDIA.



WHEN the ruthless globe-trotter goes on the war path, when the blase young man wants a new sensation, when the cockney, promoted from an elevated stool in London to a cart and a waler in the Gorgeous East, wants to impress distant friends with the outward and visible signs of unrecognised greatness, photography's artful aid is invariably invoked. Like matrimony or measles, amateur photography surely lays its hold on dwellers in the land of the sun. Happy he who escapes it happier he who catches the general infection and drees his weird to the bitter end. The one saves his depreciated rupee ; the other tastes unalloyed pleasures that, alas, neither wine nor wedlock can afford. You, gentle reader, who have listened with credulity to the whispers of fancy in selecting your picture, and have pursued with eagerness the phantoms of hope in making your first negatives, can speak feelingly of the joys that came showerlike with the splashes from your developing trays. For you these lines are not intended. I speak to those who yet struggle against the common lot, not knowing the bliss that lies perdu in the dark room. Let these follow me, and they shall partake of happiness beyond that known to ordinary men ! 999

I shall commence with a brief history of the art. To omit the annals would be the equivalent of running a National Congress without an imaginary grievance which, as Euclid neatly puts it, is absurd. It is hard, however, to fix an exact date for the birth of the germs of our present knowledge. Some ascribe the discovery to Porta, a gentleman who thought no small beer of himself ; but though he certainly knew all about the camera obscura, it was not till the commencement of the

current century that any method was devised for obtaining an impress of the pictures produced by the agency of light. The first step was really taken by Wedgwood, who in 1802 published "An Account of a Method of Copying Paintings on Glass and of making Profiles by the Agency of Light upon Nitrate of Silver." Considering that the great chemist, Sir Humphry Davy, was associated with Wedgwood in his experiments, it is surprising to find that they stopped where they did. Their method was to draw the pictures first on glass, and then by superimposing the plate on white leather impregnated with the nitrate of silver to obtain faithful reproductions. At an early stage of their work they discovered that leather was a better material for their purposes than paper; but it never seems to have struck them that the advantage was due to the presence of tannin. The specific action of tannin on the sensitive surface they, of course, were not in a position to investigate, as chemical knowledge was not at the time sufficiently advanced; yet, with the materials at their disposal, had some attempt been made to ascertain the peculiar value of leather, it is within the bounds of possibility that the discovery of photography would have been anticipated by nearly a score of years, and that to England would have fallen the honour of the invention. As it happened, Wedgwood's method of copying *à la Daguerre* on glass was more curious than useful, as no mode of fixing the pictures was then known and the images on the leather blackened on exposure to light. The unsatisfactory results of these experiments seem to have influenced other workers; for we find in 1803 Dr. Wollaston investigating the action of light on gum guaiacum, and in 1814 Joseph Nicéphore de Niepce devoting himself to a study of photographic effect on resins. In the latter you, my reader, doubtless recognise the fairy prince at whose touch the sleeping beauty of photography waked into life and vigour.

Though to Niepce is certainly due the honour of the discovery of a practical application of photography, and although on his investigations most of the existing processes for photographically obtaining relief blocks for printing are undoubtedly

based, his invention was but distantly prognostic of the art practised by the amateur of today. As I said before, Niépce devoted himself to the study of light action on resins, and the discovery he made was that bitumen dissolved in any of its solvents becomes insoluble on exposure to light. His method of procedure was after coating a polished silver plate with the resin to expose it in the camera obscura, and then dissolve out the asphaltum not acted on by light. The result was a picture, not very good it is true and looking all the fine gradations that mark photographs of the present time, yet one that gave correct drawing with very little trouble. One defect, however, marred its utility:—the lights and shades of nature were reversed in it; for where the shadows should have been, the bare white metal was exposed, and the finest whites, those where light had acted most, were represented by insoluble brown bitumen. To remedy this, he went into partnership with a painter named Daguerre, who had been experimenting in the same direction. So far as obtaining the highest lights on the plate was concerned, of course there was no difficulty, as the bitumen could be mechanically removed; but to blacken the whites in proportion to their natural values was the difficulty, and this was surmounted by using iodine. During the progress of your experiment Niépce died (1833), leaving Daguerre to carry on the work alone. Six long years of patient research passed without any notable result, until in 1839 accident gave what thought and investigation could not find. The tradition says that Daguerre one evening put away in a cupboard some exposed plates on which no impression was visible, and awoke next morning to find the pictures perfectly developed and himself famous. Possibly, his first impression must have been that the pixies, brownies, or some other of the good little people who work for good Sunday School children had done the deed; but close examination of the cupboard showed that the bottom was covered with minute globules of mercury accidentally spilled, and a few trials proved that the appearance of the pictures on the plate was due to the mercury.

The importance of the discovery can hardly be overrated ; for it gave the first clue to the fact that the exposure of a sensitive plate to light, for only for a few moments, leads to a change in the silver salts, which, though invisible to the eye, aided even by the most powerful microscope, is yet most pronounced and requires only the application of chemical agents, commonly termed "*developers*," to make itself manifest. On this foundation photography as at present practised rests. Before the discovery the pictures produced were the outcome of exposure of plates in a camera obscura for many hours till a visible impression was made ; and that, owing to the shifting direction of sunlight, of course gave very inferior results. The publication in January 1839, of the Daguerreotype process changed the current of thought, and led to the investigations which has made possible the production of the finest "instantaneous" pictures by amateurs of only a few weeks' experience. Driving clouds, breaking surf, street scenes, express trains, and horse races, requiring exposures of hundredths of a second, are now quite within the reach of any young man with a few rupees at his command. In the words of one of the advertisements, he need only point his camera to the object he wants, press a button, and the trade does the rest.

Simultaneously with the announcement of Daguerre's discovery, an Englishman, Fox Talbot, published a paper on "Photogenic Drawings" remarkable as being the precursor of the modern science of negative making. His plan was to coat ordinary paper with a solution of common salt, and then by brushing over the surface with silver nitrate to produce silver chloride with a slight excess of the nitrate. By superimposing on the prepared side opaque or semitransparent substances and exposing to light a *negative* image was obtained, that is, one with the lights and shades reversed. But by placing the negative in contact with another prepared piece of paper and again exposing to light a correct representation of the subjects was secured, and there was no limit to the number of impressions that could be obtained from one negative. In this latter respect the advantage of the process over the Daguerreotype, which

gave only one positive image on a silver plate, was certainly great ; but whereas in the Daguerreotype pictures were made in the camera much as we do at the present time, Talbot's earliest methods could only give copies of such substances as lace, ferns, and the like. The chloride of silver coating on the paper was not sufficiently sensitive. A remedy for this defect was, however, soon determined by the Rev. J. Reade, who discovered that, by the addition of gallic acid, not only was the coating rendered much more sensitive, but that it could develop the invisible image resulting from short exposures to light. At about the same time Goddard found that by the addition of bromine to the iodine on the silver plate of Daguerre its sensitiveness was greatly enhanced, so that exposure could be reduced from minutes to a few seconds. Talbot was not slow to profit by Reade's discovery, and by judiciously annexing that gentleman's and Daguerre's ideas he gave to the world in 1841 a combination which is now known as the Calotype process. In it the paper was coated with silver iodide combined with gallic acid, and nitrate of silver was used for the development of a negative image. But for some reason or other the value of Goddard's researches was not appreciated, and it was not till Blanquart-Evrard of Lille drew attention to them that bromine was used with the iodide to secure increased sensitiveness.

The further progress of photography may be likened to a stream that has its origin in places wide apart. At first the narrow rills, starting from the sources, take independent courses as if they would never meet ; but gradually uniting become a great river that gathers strength and volume with its advance onward to the mighty world of waters in which it loses itself. We have seen how from the bitumen pictures of Niépce the Daguerreotype came into being, and have also noted how Wedgwood's experiments led to the "Photogenic Drawings" of Fox Talbot, which then insensibly combining with the French discoveries appeared as the Calotype process. From this point the progress made is only the natural evolution of Talbot's patent. With the advance of the art-science fresh workers were caught up, and these, by improvements and modi-

fications, have so amplified the course of photography as to make its influence felt in most of the appliances of daily life. Calotype negatives being, as stated before on paper, its fibres hindered the perfect transmission of light, and coarse prints, lacking definition, were the necessary results. To a slight extent this drawback was remedied by the use of waxed paper; but the need of a transparent support for the negative image was from the beginning felt, and Sir John Herschell was the first to demonstrate in 1843 the value of glass for the purpose. The difficulties attendant on his method of coating glass with silver chloride by subsidence were, however, so great that no attempt was made to follow in his wake, and it was left to Niépce de St. Victor, the nephew of the older Niépce, to introduce in 1847 a working process. His plan was to coat glass with albumen mixed with potassium iodide, and to sensitise the plate by immersion in a bath of silver nitrate. The silver iodide thus formed was fairly sensitive, and the prints obtained from the grainless glass negatives were infinitely superior, as regards clearness of definition, to those produced from waxed paper. Albumen as a vehicle for the sensitive silver salts (which hereafter I shall designate by the technical term *silver haloids*) had however, certain disadvantages in actual work, and was abandoned for collodion when the employment of the latter was suggested by Gustav Le Gray in 1850, and a practical process worked out by Scott Archer in 1851.

The use of collodion for retaining the silver salts *in situ* marks a new era in the annals of photography, and brings us down to the present time. Collodion certainly has given place to gelatine where rapidity is a desideratum, but for lantern transparencies and large negatives for photo-mechanical work it still holds its own against all comers. Its only drawbacks arise from the necessity for using it while still moist and from its not acting as a "sensitiser." According to the process published by Scott Archer, which substantially is the one followed to the present day, the collodion, after being "salted" by mixing with it cadmium iodide and cadmium bromide, is poured on a clean glass plate, which is then submerged in a bath

of silver nitrate. If after the plate is removed from the bath, it is allowed to dry, the silver salt would crystallise and disintegrate the film so as to render it utterly unfit for the duty it is intended to perform. The plate has, therefore, to be exposed in the camera while it is still wet, and that, in the case of landscape work, implies the carting about of an enormous number of baths, tents and other impedimenta. To remove this serious defect, photographers from the first concentrated all their energies, and many dry colodion processes were suggested, but none was perfectly successful. In all the plan was, after sensitising in the silver bath, to wash out the excess nitrate of silver, and then to apply some organic substance which would do the work of the nitrate and act as the "preservative." These "preservatives" ranged from beer, tea and coffee to albumen and tannin, but, as I said before, they all failed to give the best results. Gelatine by acting in itself as both vehicle and "sensitiser" furnished what was wanted.

I am afraid the last sentence will convey very little meaning. The term "sensitiser" has been used twice before, but on each occasion in a technical sense. As an explanation will also give an insight into the rationale of photographic processes, I shall, before proceeding further, give you a glimpse behind the scenes. From what has been said before, you of course have gathered that the materials employed in taking light pictures are—salts of silver, a vehicle for placing them *in situ*, and a support of either paper or glass (transparent sheets of celluloid have recently also come into use, and possess many advantages over either paper or glass). For the sensitive material, the haloid salts of silver—that is, a chemical combination of silver with the halogens (from *Gr. Hals*, sea salt; and *Gennao*, to produce) chlorine, or bromine or iodine—are employed because they of all compounds exhibit the action of light in the most marked degree. They all change colour on prolonged exposure to light; and it was this property that first led to their use; but the extent of the discolouration is by no means an index of their sensitiveness with short exposures in the camera. Silver chloride colours most, but it is far less sensitive than either the iodide or bromide

of silver, which alone are used for camera pictures with reasonable exposures. The necessity for employing the support and vehicle arises from the fact that photographic action on the sensitive silver salts is only superficial, the change that occurs in it on exposure to light not extending below the surface. If the silver compounds were subjected in masses to the sun's rays, the darkening which is one of their characteristics, would be merely skin deep, and the interior would remain unaltered. In order, therefore, to obtain the full effect of light, it is requisite that the sensitive material should be presented to the light in the form of a surface; and this desideratum necessitates the use of a support. The support in its turn requires a vehicle for the attachment of the pulverulent sensitive salts, and it was for this purpose that collodion, albumen and gelatine have been used.

The value of collodion lay in the fact that it had as little effect on the sensitive salt as the glass of the support; yet this very advantage was also its greatest defect. This sounds like a paradox, and requires some explanation. It is hard however to convey a very clear impression without going more into the region of chemistry and physics than the space at my disposal will permit, but I shall give you a rough idea in a few words. I have just said that the silver haloids are a chemical combination of the metal with one of the halogens, and I may now add that photographic action consists in the release of a portion of the halogen from the salt. When a plate coated with a silver haloid is exposed to light a photo-chemical change occurs—a small portion of the chlorine or bromine or iodine is set free and an oxyhaloid is left, which may be coloured or not according to the duration of the light action. The colouring is of no account, as that can be effected far better by other means: what is essentially necessary is that the photo decomposition is accomplished. But the bonds of attraction between the silver and the halogen are sufficiently strong to resist the effect of light, unless its action be long continued, and the use of the haloids under such conditions in actual work is of course out of the question. For short exposures in the camera the assistance of some compound that would accomplish

what light commenced is therefore essential, and the requirement is met by what are technically known as "sensitisers." The value of these substances lies in their power to absorb the halogens. They cannot fulfil their functions of absorption off their own bat, so to speak ; but let the hold of the halogen on the silver be only slightly loosened by the impact of light and the sensitizer seizes the weakened iodide, bromide or chloride much as a tiger pounces on stray mutton. Now collodion is as inactive as the glass support, and the "sensitizer" has to be supplied by leaving on the collodion coated plate some nitrate of silver from the sensitising bath ; which, for the reasons already given, implies the use of the plate while still moist. As I said before the first efforts to obtain plates that would keep for some little time after its preparation, were confined to washing out the excess nitrate of silver and substituting such organic "sensitisers" as beer and coffee. The processes were troublesome and uncertain, the collodion dry plates were not very sensitive, and it was not till the publication, in 1871, by Dr. R. L. Maddox, of his method of preparing an emulsion of silver in gelatine that the dry plate problem was satisfactorily solved.

Gelatine was used by Le Gray as far back as 1849 for coating paper negatives, and its employment with glass was suggested in 1853 by Gaudin, but no notice was taken of the suggestion, probably because it could not give the best results with the methods of work then known. Anyhow, to Dr. Maddox is undoubtedly due the honour of bringing it into practical use. Its superiority lies in its acting both as a vehicle and as a sensitizer. Unlike collodion it readily absorbs the halogen loosened by the impact of light ; and by allowing, for reasons that will be given, the use of stronger developers than was possible with collodion, it gives greater sensitiveness. It must not, however, be supposed that gelatine plates attained at first anything like the rapidity with which we are all so familiar. The plates were, in fact, for sometime after its introduction, slower than the collodion coated ones at that time generally in use, and it was only after years had lapsed and new experimenters had entered the field of

investigation that the conditions under which sensitiveness was increased came to be formulated.

In modern gelatine plates the bromide of silver is the salt generally employed, because with gelatine it is much the most sensitive haloid. It has, in the first place, to be mixed in a state of extremely fine division with the vehicle, and this is effected by what is known as emulsification, for details of which I must refer you to Capt. Alney's excellent work, "Photography with Emulsions." The molecular cohesion thus obtained is however not sufficiently close to obtain great sensitiveness, and the emulsion has to be boiled, or, as it is technically termed, "ripened." By this ripening the incorporation of sensitive salt and vehicle is not only more thorough but the size of the silver haloid particles is also greatly increased, and as this permits of the exposure of a larger surface of the sensitive body, the rapidity of the plate is marvellously enhanced. Ripening may also be effected with ammonia, but whatever agency is employed, there is a limit which must not be passed, or decomposition will ensue, and the emulsion has to be washed, or the soluble bromides and nitrates would crystallise and tear the film. After washing the emulsion is remelted, and applied as a coating to glass plates.

Of the working of dry plates I shall speak on another occasion.

GEORGE KEITH.

TOPICS OF THE MONTH.



UBLIC attention at Home has, during the past month, been chiefly directed towards Mr. Parnell and his opponents. At the time of writing, the issue of the contest seems doubtful, the latest information to hand, as we go to press, being that Messrs. Parnell and O'Brien held a prolonged conference at Boulogne on Tuesday last, and from the fact that they lunched together afterwards, we may presume that revolvers were not drawn. It is not with Mr. O'Brien, however, that Mr. Parnell has to settle, but with Mr. Justin McCarthy, Mr. Sexton and their powerful supporters. But that Mr. Parnell intends to stand firm as long as he has a supporter left is, we think, evident. The last mail brings a report of the great Parnell speech at Dublin, which city is undoubtedly loyal to the Parnell interests. Both the Irish leader and Mrs. O'Shea were loudly cheered. In the course of his speech Mr. Parnell said that if by his immediate resignation he could bring the fruition of Irish hopes one second nearer, that resignation would be cheerfully given. He would not, be said, dwell upon his defence in the O'Shea *v.* O'Shea-Parnell case; which, seeing that there was no defence at all, was, we think, rather an unnecessary statement. Mr. Parnell, however, declares that there is another side to the question. If that be so, we think that he did not use much discretion in allowing the case to go by default.

Apart altogether from the moral aspects of the case, we think it is not much to be regretted that the split should have occurred just at this juncture. It will most undoubtedly affect the next General Election, and will probably be the

means of strengthening the Unionist cause throughout Great Britain—whether Mr. Parnell retains the leadership of his party, or not. The mail news seems to point to the probability that he will retain that leadership—in the teeth of his adversaries. In Dublin, itself, the dominant sentiment is distinctly Parnellite, while all the great towns seem also to have declared for him. Effigies of prominent anti-Parnellites have been burnt in effigy, and we are told that at a mass meeting, held in Dublin, the Lord Mayor said that Mr. Parnell's opponents were the political lepers of Ireland, and he further compared Mr. Tim Healy to Judas Iscariot. Mr. Gladstone, he said, did not yet know that it was scoundrels he was dealing with. Even the *Times* is forced to confess that Mr. Parnell "has once more succeeded in placing his enemies technically in the wrong. At the same time he has secured plausible grounds for denouncing them to the Irish Nationalists as tools and hangers-on of English party politicians." So that, all along the line, Mr. Parnell seems to hold the whip hand. But what about the Irish Party? The contests and rivalries between the different factions promise to be more prolific of trouble in the future, than were even the religious difficulties between Orangemen and Nationalists in the past.

The conflict between capital and labour still continues. The discontent of the masses, evidenced by the popular uprising of working men, not only in England and Scotland, but also in Germany, France and Austria, stirred up the working men in Belgium to make a demand for universal suffrage. Mr. Gladstone, who has championed the working classes in England, and who has said that many of the difficulties of the times have arisen from the attitude of the classes in antagonism to the masses, is at least partly committed to the eight-hour movement. Corporations and employers are forming strong combinations in England to combat the growing strength of the trades unions, and special interest was recently manifested in an address delivered in London by Mr. David Dudley Field, the eminent lawyer, on "The Functions of the State." Mr. Field believed that there was nothing comparable to co-operation as a

reconciler of the conflict between capital and labour. He utterly opposed the socialistic theories, which he declared are disturbing and menacing society, and said that they would never be generally accepted; that the State was not bound to provide work for the people or to furnish them with bread, clothes, houses or land. Notwithstanding Mr. Field's declaration, the German Government has taken a long stride in the direction of paternal government by pensioning working men.

One of the distinguishing features of the new American Tariff Law is the great increase of duties on agricultural products. We learn from the American papers that the duty on barley is 30 cents. per bushel instead of 10 cents. The duty on buckwheat is 15 cents. instead of 10; on corn 15 cents. instead of 10; on corn meal 20 cents. instead of 10; on oats 15 cents, instead of 10; on wheat 25 cents. instead of 20; on butter 6 cents. per pound instead of 4; on cheese 6 cents. instead of 4; on beans 40 cents. instead of 30; on eggs 5 cents. per dozen instead of nothing at all; on hay \$4 per ton instead of \$2; on hops 15 cents. per pound instead of 8; on preserved vegetables 45 per cent. instead of 30 per cent.; on vegetables in the natural state 25 per cent. instead of 10 per cent. These duties were imposed for the special benefit of the American farmers who, for a long time past have been compelled, by Canadian and other competition, to accept prices for their produce that were not fairly remunerative for their toil and skill. It was recognized by Major McKinley and his Republican colleagues that the farmers were entitled to protection as much as the manufacturers or wool growers, and the Tariff was framed with special reference to their interests. For years past it has been a Democratic cry that the manufacturing classes were protected at the expense of the agricultural classes; and anyone would suppose that an act proposing to equalize matters would have met with the support of the party. But nothing that is done by the Republican Party can please the Democrats, and so they are now loudly vociferating that the present Tariff is all wrong because it raises the price of farm products, and compels the manufacturing classes to pay more for their hay and butter,

eggs and vegetables. Consistency does not appear to be a Demoratic virtue.

Just before the American mail left, a statement was issued from the America Mint regarding the decline in the price of silver, which is of peculiar interest to commercial men in this country, and in fact, to commercial men all over the world, at the present time. Mr. E. O. Leech, the Director of the Mint, —said to be one of the most competent men who have ever accepted the responsible duties of that office, answers, in this document, some of the criticisms that have been directed against the United State's Government regarding its method of purchasing silver, and he shows, we think pretty conclusively, that it is entirely free from the possibility of favoritism, or the suspicion of injustice. The entire business is done by telegraph, and the largest transactions do not occupy beyond fifteen minutes. It is shown that while the Government has purchased an amount of silver equal to the current production of American mines, since the passage of the new Silver Bill, the silver on hand has not diminished, and that this large and undiminished stock "is a standing menace to the price of silver, and is, of itself, sufficient to shake public confidence in it." He says the Western refineries allowed their product to accumulate instead of taking the usual course of offering it for sale or selling it abroad, so that when the new Silver Bill went into operation this large accumulation had to be disposed of in addition to the large amount of silver imported from abroad. It was unfortunate, he adds, that certificates were allowed to be issued on silver, guaranteed by a National bank and listed on the Stock Exchange, so that they could be dealt in on margins as other stocks, thus making a foot-ball of silver "to be kicked around at the pleasure of bulls and bears." "In my judgment," he continues, "there should be a law enacted against dealing in money metals on margins." Two important suggestions in reference to silver legislation have been advanced, and both were being urgently pressed: First, that foreign silver should be excluded from Government purchases; second, that an appropriation, immediately available

and sufficient for the purchase of all the surplus supply on hand, say \$10,000,000, should be made to clear the market. If these two suggestions could be carried out, the regular monthly purchases would thereafter absorb the entire domestic product, and no doubt, speedily increase the price of silver in the United States. If, on the other hand, some such action is not promptly taken, there is nothing to prevent a large increase in the importation of foreign silver into America, and a consequent still further depreciation of the price; possibly to the low level that prevailed before the present law was enacted.

Our own idea is that the Silver Bill—although a good thing in itself, stands in need of further strengthening, for it is evident that so long as America offers an open, and the best, market for the surplus silver of Europe, the purpose and intent of the Bill—namely to restore silver to its proper place in the world of commerce, will be defeated.

A few instances will serve to fully demonstrate our meaning. While the Silver Bill was pending, one of the Antwerp papers called the attention of the Belgian Government to the fact that silver was rising and that the time had come, or was fast approaching to sell a portion of Belgium's surplus silver, and doubtless the advice has already been acted upon. Further than this several foreign financial newspapers have called attention to the fact that Roumania is about to demonetize over £5,000,000 in five-franc pieces; that Belgium, Italy, and Greece, on the dissolution of the Latin Union at the close of the present year, will be obliged to take back from France their depreciated five-franc pieces, and that the bank of France holds, ready for delivery, enormous amounts of silver, which are to be returned to the Governments which coined them, as follows: Over £5,000,000 in Italian five-franc pieces, £6,000,000 in Belgian, and £80,000 in Greek coin of the same denomination; £250,000 in Italian fractional currency, and £90,000 in Belgian fractional currency. When the Silver Bill was pending, the friends of the white metal were desirous of providing for the exclusion of foreign silver, but there seemed to be a positive antagonism to this policy, and it was not carried out. In the light of experience it will be seen that a mistake was made.

The latest news regarding the Indian outbreak in the United States is sufficiently startling. This outbreak was by no means unexpected. It was foretold some two or three months ago that the possibilities were that there would be "in the North-West, this winter, the bloodiest Indian war ever fought." An Indian Messiah appeared, who promised final vengeance of the Indians upon the whites and the restoration of Indian supremacy. Sitting Bull (who was recently killed in battle with the United States' troops) was the High Priest of this craze. General Miles, Commander of the Military Division of the Missouri, who has recently made a visit to Utah, Montana, and the Cheyenne Reservation, reports that the Indians have the utmost faith in the Messiah who (as they believe) has come to restore them to their former glory, bring back the buffalo, and drive the whites from the land. This belief exists among the Sioux, Cheyennes, Blackfeet, Shoshones, and other tribes the craze having extended in all to some ten tribes. Some few persons have seen the man who claims to be the Messiah and some allege that they have conversed with him. General Miles gives it as his conviction that there is more than one person personating this Messiah. The pretender tells the Indians that when he comes to reign over them fire-arms will no longer be used or necessary; that at his coming the dead Indians will all be raised to life, the buffalo will return, and that he will draw a line behind which he will gather all the Indians, and then will roll the earth back upon the whites. Persons who have seen the Messiah allege that he is muffled up and disguised, so that his face is not discernible. General Miles believes that he is a full-blooded white. Among those who accepted the new belief, none have been so ardent as was Sitting Bull, who gave a great deal of trouble in the vicinity of the Standing Rock Agency by his attempts to stir up the bucks and promote discontent and disaffection among the Indians generally. On one occasion he gathered his followers at a camp on Grand River, some forty miles from the Agency in South Dakota, and there inaugurated the ghost dance, a fanatical, demoralizing, and impassioned diversion, which it was found necessary to suppress by the interposition of troops.

General Miles is of the opinion that the Mormons have had a great deal to do with stirring up the existing disaffection, and in promoting the belief in the new Messiahship. They have had missionaries at work among the Indians for many years, and have made many converts. As they themselves claim to believe in prophets and spiritual manifestations, it would be quite natural that they should seek to increase that belief among the Indians, especially if by so doing they could promote the conversion of the tribes to their particular faith. The chief seat of the trouble has, hitherto, been in the departments of Dakota and Platte. In that country there are about 30,000 Indians, crazed by religious excitement. There are seven military posts around this territory, all well equipped.

So far the rising has not been attended with much bloodshed, but in the last engagement the United States troops seem to have got out of hand altogether; if it be true, as we are told, that they killed two hundred and fifty Indian women and children. The Indians are so thoroughly imbued with the craze that they are in that state from which they could easily be roused to the utmost violence. Already we are told that settlers in the outstations are seeking the protection of the forts; while the excitement amongst the Indians, and even among the Friendlies, is intense. Any moment we might receive news of a massacre of startling proportions.

It is, of course, humiliating for the Americans to have to say it, but they themselves acknowledge that the Indian chapter of their history is discreditable to them as a nation. The situation, as it existed a month ago, is thus described by the *New York Herald*:

"In the meantime the rations promised by the Government have not arrived, and the Indians are starving. They have little or no clothing to protect them from the bitter cold, and just food enough to keep them hungry all the time. These wards of the Republic are cheated out of the food which has been promised, but when they complain, or in very desperation rise in revolt and commit an outrage, they are shot down like dogs and word is sent to 'the Great Father' at Washington that the only good Indian is a dead Indian."

It would appear from the above that, while admirable results

have been reached in legislation, the Indian administration upon a mere party basis perplexes and prolongs the good work which has been begun.

With reference to Professor Koch's Consumption Cure (the lymph-making establishment in connection with which will shortly be transferred to the German Government) it is worthy of note that, some time ago, that Government became so much convinced of the fact that there was something substantial in the cure, that a Bill was actually drafted for introduction into the Reichstag, appropriating funds to enable the Professor to instruct all the physicians in the German Army how to administer the remedy. We do not know whether the Bill was ever introduced, but that the Government attaches the greatest importance to the discovery may be judged from the fact that it is paying to Dr. Koch one million marks down, and another million from the profits of the yearly sales of the lymph. The German Government does not usually give its endorsement to anything of this kind without the most careful examination; and we may safely conclude that it has not on this occasion departed from the usual rule. As for the attacks made upon the system by Dr. Koch's brethren of the lancet, it is well-known that the regular professional instinct in regard to new and striking alleged discoveries in medical science is scepticism. We have had instances in this country, of late, that such is the case. The discoverer of cancer-cures or a remedy for leprosy is saluted with the general distrust of the faculty, and a disposition to regard the announcement as sensational or sheer charlatanry. This, of course, is not surprising, although a friendly and hospitable spirit is perfectly compatible with wariness and a wise credulity. It is clear that progress in medical science involves discoveries that will necessitate the abandonment of conclusions based upon more imperfect knowledge, and modify beneficially medical practice. But the popular interest in alleged discoveries which promise relief to diseases hitherto deemed incurable is naturally so great, and excitement becomes at once so warm, that the profession almost unconsciously assumes an attitude of resistance to the pressure for premature approval. Pasteur's treatment, for hydrophobia is still

on debatable ground so far as the faculty is concerned, and at this moment Koch's reputed cure for the early stages of consumption commands universal attention in the press. The process, in brief, is the injection of a lymph, followed by treatment. The composition of the lymph Dr. Koch has not made public, and there is good reason for such a course, because, during the excitement, the lymph would be certainly counterfeited, with results that might be disastrous. Meanwhile medical inquirers from all countries are hastening to Berlin, and the subject will be thoroughly investigated. There is no more reason, in the nature of the case, to distrust the value of the discovery than in the case of inoculation for the small pox. At the same time it is not well that the assurance of so pregnant an achievement should be hastily given, or that more should be assumed to have been accomplished than has been. And no one is more earnest to guard against an unwarranted feeling of confidence in the new treatment than Dr. Koch himself. Much less is actually claimed for it by him than is generally supposed, and in most cases it is to be regarded, according to his own statement, rather as an aid to well-known and long-tried means of cure than as an independent remedial measure. He says in his memorable paper published in Berlin, on November 14th, that experiences with patients have led him "to suppose that phthisis in the beginning can be cured with certainty with this remedy," but that "this statement requires limitation in so far as at present no conclusive experiences can possibly be brought forward to prove whether the cure is lasting. Relapses naturally may occur, but it can be assumed that they can be cured as easily and quickly as the first attack. On the other hand, it seems possible that, as in other infectious diseases, patients, once cured may retain their immunity; but this, too, must for the present remain an open question." In part the same may be assumed for older troubles, he adds, "when not too far advanced; but patients with large cavities . . . will probably obtain lasting benefit from the remedy only in exceptional cases." It is clearly a matter of importance that these important limitations should be widely understood.

CALCUTTA, 31st December, 1890.

APEX.

THE INDIAN EMPIRE.

VOL. III, No. 4.—FEBRUARY 1891.

THE PROPOSED AMENDMENT IN THE CRIMINAL AND PENAL CODES.



T is sincerely to be hoped that the Government of India, having put its hand to the plough, will remain firm to the principles of humanity embodied in the Bill now before the Legislative Council, to amend the Indian Penal Code and the Code of Criminal Procedure; and that it will take as its guide the rule recorded in a minute by the Marquis of Wellesley in which it is laid down that, while it is one of the fundamental maxims of the British Government to consult the opinions, customs and prejudices of the natives, they should only be so taken into consideration when they are consistent with the principles of humanity, morality and reason. That the Bill now under consideration of the Select Committee is the outcome of mature and earnest thought is, we consider, sufficiently proved by the speeches of His Excellency the Viceroy and Sir Andrew Scoble, in the Debate on the 9th January, and also by the minute recorded by Sir Stuart Bayley, just before he laid down the reins of office. To take the latter first in order. The papers submitted to the Government of India by the late Lieutenant-Governor of Bengal, on the eve of his retirement embodied the reports of divisional Commissioners who had been instructed to collect information on the general question of raising the "age of consent" among Hindoo girls. The divisional officers had, in their turn, consulted their district officials, leaders of local public opinion and religious thought, and well known medical officers. The result was a scathing indictment against certain customs prevalent amongst Hindoos, and the conclusion arrived at by Sir Stuart Bayley was that an alteration in the existing law was urgently called for. It may be as well at this point to contrast the provisions of the English Criminal Law with those of the Indian Penal Code, as they at present stand :—

How girls are protected by the Indian Penal Code.

1. A husband having intercourse with his wife, who is *under ten years of age, with or without her consent*, is punishable with transportation for life (sec. 376).

2. A husband having intercourse with his wife, who is ten years of age, with or without her consent, is not punishable at all. The law in the most explicit language declares that this is not rape (sec. 375).

3. Any person, other than a husband, having intercourse with a girl who is *ten years old, with her consent*, is not punishable

4. A girl under twelve years of age is not competent to consent to the commission of any offence upon her, except that of rape or seduction (secs. 90, 375).

How they are protected by the English Criminal Law Amendment Act.

1. He is punishable with penal servitude for life.

2. He is punishable with penal servitude for life.

3. He is punishable with penal servitude for life.

4. Any one having intercourse with a girl *under thirteen years of age, with or without her consent*, is punishable with penal servitude for life.

5. Any one having intercourse with a girl *over thirteen and under sixteen years of age, with or without her consent*, is punishable with ten years' rigorous imprisonment.

Such is the Indian law as it now stands, and under its provisions, outrages such as that which earned for Hari Mohan Maiti so unenviable a distinction, are liable to be perpetrated. Regarding the evils of the system they cannot, we think, be overrated, and to European ideas the insane desire expressed by a certain section of the Hindoo community to be allowed to establish marital connexions with undeveloped children which have rightly, if somewhat pungently, been compared with *dâk bungalow moorgies* in size and shape, is inexplicable.

The proposed alteration in the law is based upon the following conclusions, which have been arrived at after a careful study of the whole question :—(1) That whereas it is a religious obligation among Hindoos for their daughters to go through the ceremony of marriage before the age of puberty, it is no part of the Hindoo religion that they should be subjected to intercourse with their husbands before that period. (2) That in Bengal a certain event (which only indicates the approach, and not the completion, of puberty) generally takes place at the age of 12 or 13, though it is frequently, by artificial stimulation, brought on at an earlier age, to minister to a debasing lust. (3) That it is a general practice for Hindoo girls, after they are married, but before puberty is even indicated, much less established, to be subjected to more or less frequent acts of connexion with their husbands. This custom appears to be wide-spread, but less universal among the higher than among the lower classes of Hindoos;—it prevails generally over Bengal Proper, especially over Eastern and Central Bengal. It does not, however, extend generally to Behar, nor is it prevalent in Orissa, and the aboriginal tribes are apparently free from it. (4) That apart from the moral abominations which sometimes accompany this practice, the physiological

results are disastrous, not only on the immediate health of the girl, leading constantly to injury and occasionally to death, but even more markedly so on her capacity for bearing healthy children thereafter.

These are sufficiently serious indictments of a system under which vile outrages such as that above referred to are possible, and the Anglo-Indian Press, in conjunction with the more influential portion of the Native Press, is unanimous in demanding that the Indian Government shall accept a responsibility which has been recognized as a duty by every civilized Government in Europe, by raising the age of consent, and extending its legislation to comprehend the change. And in this matter the intentions of the Government are thoroughly in accord with European sentiment, and also with the desires expressed by a large and influential section of the Hindoo community. It is, of course, to be regretted that the leaders of native society should not, of their own accord, have brought about the desired changes, instead of leaving to an alien Government the task of intervening for the protection of the helpless little victims of what, we are assured, is, too often, brutal lust. It seems to us passing strange that in a country, and amongst a people, where it is claimed that the deference shown to women is somewhat akin to that practised by the mediæval knights of Europe, refuge should be sought by the men of the race under cover of the old plea by which Adam strived to ward off punishment for his disobedience,—by attributing the blame to the women. And yet we are assured that such is the case. Take, for instance, the following which we quote from a pamphlet, entitled *Harimatism*,* the writer of which, although a native of the soil, does not hesitate to put forward some home truths that are worthy of consideration. He says :—

"The glaring evils of Hindu society have now, for a long time, been engaging the attention of the more educated members of that society and, moved by their representations, of philanthropic and sympathetic members of other societies. The causes why such efforts have been futile and barren of fruit are not far to seek. The peculiar constitution of the caste system of the modern Hindus and the singular circumstances attendant on the national upheaval, worked upon by the influence of Western education, tempered by lethargic and often negative home influences, in great measure account for it. Another cause, and a not unimportant factor, is the rank superstition and abject ignorance in which the mass of the female population of India is sunk. It is a well-known fact that even among well-educated gentlemen, one is unwilling or unable to introduce such and such a reform, because one's wife, or mother, or grandmother, or some female member of the house, individually or collectively, is against the proposed change. This deference to the opinion of woman, born of the ancient books of the Hindus, which inculcated principles not unlike those practised by the mediæval knights of Europe, has been the main cause of the deterioration of this once grand race of Aryans !"

Then, again, we find it recorded in Sir Steuart Bayley's minute that while the present system is viewed with growing disfavour by the educated men of the Hindoo communities, "it is favoured and enforced by the influence of the women." The above may or may not be true. It must be remembered, however, that the information comes from native sources, and the statement that the women, "the old ladies of

* "Harimatism, and how to prevent it." By Rajah Murli Manohar Bahadur Asaf Jahi, Hyderabad, Deccan. (Madras Lawrence Asylum Press.)

the house," are the main cause of the scandal, and that until they can "be 'got at,' or some control can be exercised on them," the practices above referred to will continue to be carried on, is one advanced by what is described as "well placed native opinion." The home life of the Bengali is practically a sealed book to Europeans, and we have no means of judging how far the rising generation are under the control of the mothers-in-law and the "old ladies of the house." The suggestion that they are under such control comes from within, and not from without. This self-accusation, however, sadly conflicts with the argument often advanced that it is English education that has made the Bengali what he is, and that it does not befit the Englishman, now, to turn round and call him names because he has become what the Englishman wished him to become. If his English education has not freed the Bengali from the control of his mother's apron strings, if he still remains subservient to petticoat government, and is led, where his instincts of manhood and chivalry should teach him to guide, all we have to say is that English education has failed in its object, inasmuch as although it may have given him a superficial knowledge of books, and much of the sense of others; it has given him but a shallow knowledge of men, and very little sense of his own. Without this knowledge and sense he finds himself as completely at a loss on occasions of common and of constant recurrence as a Dutchman without his pipe, a Frenchman without his mistress, an Italian without his fiddle, or an Englishman without his umbrella.

The immediate effect of the introduction of the Bill into Council has been the flooding of the newspapers with columns of eloquence; rapid, overflowing and inexhaustible, but noisy, muddy and frothy withal, and profuse rather than profound. When educated native gentlemen characterize the arguments advanced in condemnation of the Bill, as untenable, Europeans may surely be forgiven when they confess themselves unable to pierce the cobwebs of sophistry with which metaphysicians in sounds, logicians in subtleties, and philosophers in systems, have sought to envelop the main question. We are not concerned to dispute the argument advanced by that representative of orthodox Hindoo opinion, the *Indian Mirror*, when he says that "no codes of law in the whole world can be accounted more perfect, or even as perfect, as the social and religious codes of the Hindoos, when divested of the cobwebs that have settled upon them in the course of a long series of centuries;" but we can sympathise with him when he goes on to say that despite "such perfect religious and social codes, we find the Hindoos trailing in the mud and unable to help themselves." Our contemporary is responsible for the statement that "the Vedas, which every Hindoo accepts as revelation, have become sealed books, and are quoted only at second hand." In an emergency there is, according to the *Mirror*, no fit champion to come forward in defence of his own religion. In an outburst of excusable indignation our contemporary thus gives vent to his feelings:—

"But now in the supreme hour of trial, where are these self-assertive, these boastful products of Western education, the men of science, light and leading, where are they? How do they stand in the present social controversy? They do not know Sanskrit, they do not know the Vedas and the Shastras which they have hitherto laughed to scorn, they do not know the constitution of their own society, and they do not know the origin, develop-

ment, alterations and changes of their socio-religious institutions. On all these subjects of vital importance, they are densely and shamefully ignorant. How do they stand then? They are helpless in the controversy, now raging so furiously, they cannot help their own people, and the Government, to o, turns to them in vain for help. The most enlightened have now been proved to be the most blind. And the mockery and the snare of the present occasion are that the flavour and the pick of a race, known to be the most religious on the face of the earth, are unable to cite any of their great religious and social authorities on a given subject. The situation is, then, reduced to this. The masses of the people are blindly led by the Pundits; the educated class will have nothing to do with the Pundits, though in matters socio-religious, they are certainly more ignorant than the Pundits; of the Pundits, not even a handful possess a complete knowledge of all the Vedas and Shastras; most of the Pundits have been moving in certain grooves of Sanskrit learning; outside those grooves, they are as helpless as anybody else. This, then, is the situation—a far from hopeful one.

When natives of the country can, themselves, write in the above strain, surely Europeans may be pardoned when they prefer to follow the dictates of common sense and humanity, rather than accept as their guides the opponents of the Bill, and follow them into the mazes of sophistry and ignorance whither their footsteps tend. It was only a few days ago that a native paper indulged in a sneer at the expense of the *Pioneer*, who had rashly attempted to expound the Institutes of *Mānu*. Our own opinion is that, having regard to the dense ignorance which really prevails, and the affected ignorance as to the scope of the proposed Act, *Mānu* might be left out of the question altogether; or his Institutes—being merely a metrical *resumé* of older materials—be regarded as representing the ideal order of society, such as the sacerdotal caste would wish, rather than a code of legislative enactments. The moral of it all appears to us to be that, while the opponents of the Bill, orthodox and unorthodox, will imitate the European in the matter of trousers and boots, and the use of brandy and beer, their western veneer is, like that of the Russian, but skin-deep. It requires but a little scratching and off it comes, leaving the ultra-reformer in politics as conservative as his forefathers in matters of exigent social reform.

APFX.

THE DEVELOPMENT OF THE MINERAL RESOURCES OF BURMA AND SIAM.



THE first subject to have occupied the attention of capitalists and speculators, after the annexation of Upper Burma, should have been the mineral resources of the country. Partly on account of want of enterprise on the part of capitalists, and partly also because of their want of knowledge of the country, and the indolence of the native population, one of the most prolific countries in the East lies practically undeveloped. That the country abounds in mineral wealth has, for some years past, been well known, but until a great expansion of railroads is carried out, mining speculation is not likely to make much headway. To cover a large and thickly wooded country—abounding in hills—with a network of feeder lines is a task requiring much engineering skill, involving a very large amount of capital and much labour. But then no country in the world—no matter how rich she may be in mineral wealth—is susceptible of development without a tolerable display of enterprise and capital. A striking illustration of this may be found in the Transvaal. The reticence of the early settlers—the Dutch—regarding the mineral and agricultural resources of the country had its due effect upon more recent settlers, whose apparent want of enterprise enabled the former to amass wealth which would probably have wiped off the National Debt, had the English not abandoned the idea of speculative enterprise. Of course, in all speculations—especially in those relating to mining—a preliminary outlay is imperative. The outlay may be large or small, according to the magnitude of the scheme proposed; but that money must be sunk, if the speculation is to be placed on a successful business footing, is a consideration that all legitimate speculators should take into account, and they should be prepared to submit to the risks involved. What has tended to upset public confidence in the mining ventures now being carried on in Bengal is the absence of immediate results—surely too much to expect—combined with a feeling, justified to a considerable extent by the gambling transactions that have been carried on in the share market, that there is an absence of legitimate enterprise in mostly all these schemes. If this feeling should extend to any scheme or schemes launched in Burma, it would prove disastrous to the prospect of opening up the country to private enterprise. That the country will, eventually, be developed, we take as certain, once the start is made,* and this is a matter in which the Government

* Since the above was written, we have learned that Messrs. Raymond & Purdy, Mining Scientists of this city, are forming a Burmah Prospecting Syndicate, and with the information they have in their hands, there can, we think, be little doubt that the project will prove a success. It is to be hoped that, as pioneers in a new and promising field, they will reap the benefit of their enterprise.—ED. *Indian Empire*.

might, with advantage, make a move. The expansion of railways would, in the first place, open out a wide field for the employment of natives whose indolence has hitherto proved a sorry feature in the history of the country.

Ball, in his work, "*Economic Geology of India*," mentions the fact of graphite, amber, coal, petroleum, sulphur, antimony, platinum, gold silver, copper, lead, zinc, tin, cobalt, manganese, iron, corundum, sapphires, rubies, alum, talc, marble, salt, building stones, etc, all having been found in parts of Burmah and Siam, and in many cases having been worked to advantage by the natives of the country, although the implements used were of the most primitive kind. So long ago as 1853 Captain Wyndham obtained specimens of gold-bearing sands from the junction of the Shive-gyeng and Moot-ta-ma rivers in the Tenasserim Division, which were found to yield '95 of a grain of gold in a fifth of a cubic foot. Now a slight calculation will show that this means a yield of $128\frac{1}{4}$ grains to the cubic yard, and as far less than one grain per cubic yard has been known to pay well in sluicing operations, what would $128\frac{1}{4}$ grains do?

The production of tin in Burmah will also, beyond doubt, make great strides in the near future, as large areas of tin-producing alluvial drift are known to exist, in many cases yielding a higher percentage than the stanniferous deposits of Australia. The Tenasserim division of Burma seems to be the part where tin ores are the most plentiful; throughout this tract, every water-course yields tin-stone and it no doubt has its source in the granite range which separates Tenasserim from Siam. According to Ball, the occurrence of tin at various localities in the Amherst and Tavoy districts has been noticed by several writers, and it is believed that large quantities of tin were formerly produced in Tavoy, as the traveller Ralf Fitch records that in 1586 the tin supply of India came from the Island of Tavi. Some of the old pits which have been worked by the Burmese for tin are 40 feet deep, and there is evidence that tin production has been carried on in Burma on no small scale; with modern machinery, ground would no doubt pay well, that would simply have meant dead loss as worked in the old days.

As an illustration of what modern appliances and skill can do, witness the Mt. Bischoff tin mine in Tasmania, one of the best paying tin mines in the world; and yet the yield of tin does not exceed $2\frac{1}{2}$ per cent. of the stuff passed through the stampers. Situated in a dense forest, nearly at the summit of Mt. Bischoff and 45 miles inland from the northern coast, the working of this one mine has been the cause of a railway having been constructed for the 45 miles, of a large and well laid out township springing into existence, with a large Town Hall and Mechanics' Institute, two or three large hotels and electric light works to boast of; and yet, before development, there were always, as there always will be, birds "of evil omen" who pronounced the mine to be a swindle, and it has always been the same on the starting of new mining enterprises.

That large mining operations require a large capital is a self-evident fact and many a good, payable property has been deserted for the want of money to purchase suitable plant, and plant large enough to take sufficient "stuff" through. As an instance of how a valuable mine is sometimes neglected and under-rated take the case of one of the gold mines in Brazil which was bought in 1725 for less than £20

In 1814 it yielded 43¼ lbs. of gold; taken over in 1830 by an English Company known as the St. John del Rey Company it yielded in 1887, 4,500 lbs. gold, and is still being worked successfully. Had not capital and enterprise been brought to bear on this property it might have been deserted and still contained all the wealth that has since been unearthed from it, and there would not have been wanting those who would have pointed to the spot as "Somebody's Folly."

With regard to labour for opening out and working mines in Burma there should be no reason why coolies could not be obtained from Bengal, especially from mining districts such as Raneeunge, where they have already undergone a preliminary training. When the same attention is shown to Burma by explorers as has already been shown to settled mining portions of the world, such as California and Australia, then, and then only, will she deliver up a portion of her latent treasures.

But not only in Burma is there a wide field for prospecting operations; the numerous islands of the Indian Archipelago and the Independent States of the Malay Peninsula afford ample scope for enterprise. The chief impediment in the way of development would probably be the difficulty of obtaining favourable concessions in Siam, as the King, after his recent survey of his dominions, might with difficulty be persuaded to grant concessions to speculators, so thoroughly is he convinced of the mineral possibilities of his kingdom. It has long been known that tin abounds throughout the Malay Peninsula, and that in the north are found gold, copper, lead, iron, zinc, antimony, sulphur, and precious stones. But the mining industries of Siam are practically undeveloped, and those of the adjacent islands are in the same backward condition. There is plenty of room for enterprise in these islands, which should attract the attention of individual speculators. The preliminary expenditure needed would not be anything like that required for the development of the industries of Burma, where only by the formation of companies with a large working capital could success be attained. On the other hand, in the latter country the capitalist would have the British Government to deal with, while in dealing with Siam he would have to take into account the crochets and whims of the government of a country under despotic rule, for, although theoretically a duarchy, the government is practically monarchical. Many have been the complaints of British settlers in Siam to the effect that the country is over-taxed, nearly all the producers' profits being taken from them by government, in some shape or form, while no part of the taxes is spent for the benefit of the people, or the encouragement of trade.

In developing the resources of Burma and Siam there are several rocks ahead which past experience should show, so that they may be steered clear of. Among these dangers may be mentioned the abandonment of mines from want of capital, and also the overloading of mines with unnecessary and unproductive capital; paying an exorbitant price for a mining property, so that even a successful output of ore would all be swallowed up as interest on capital invested; the want of an intelligent class of miners, and careless and unbusiness like outside management of mines. If these points be guarded against and intelligent and honest workers be engaged, Burma and Siam ought to prove a splendid field for mining enterprise.

SCIENCE NOTES.

HOW CONTINENTS WOULD CHANGE WERE THE OCEAN TO DRY UP.

At the depth of about 3,500 feet, waves are not felt. The temperature is the same, varying only a trifle from the ice of the pole to the burning sun of the equator. A mile down, the water has a pressure of over a ton to the square inch. If a box six feet wide were filled with sea water and allowed to evaporate under the sun, there would be two inches of salt left on the bottom. Taking the average depth of the ocean to be three miles, there would be a layer of pure salt 230 feet thick on the bed of the Atlantic. The water is colder at the bottom than at the surface. In many bays on the coast of Norway the water often freezes at the bottom before it does above.

Waves are very deceptive. To look at them in a storm one would think the water travelled. The water stays in the same place, but the motion goes on. Sometimes in storms these waves are forty feet high and travel fifty miles an hour—more than twice as fast as the swiftest steamship. The distance from valley to valley is generally fifteen times the height, hence a wave five feet high will extend over seventy-five feet of water. The force of the sea dashing on Bell Rock is said to be seventeen tons for each square yard.

Evaporation is a wonderful power in drawing the water from the sea. Every year a layer of the entire sea, fourteen feet thick, is taken up into the clouds. The winds bear their burden into the land and the water comes down in rain upon the fields, to flow back at last through rivers. The depth of the sea presents an interesting problem. If the Atlantic were lowered from 6,564 feet the distance from shore to shore would be half as great, or 1,500 miles. If lowered a little more than three miles, say, 19,680 feet, there would be a road of dry land from Newfoundland to Ireland. This is the plan on which the great Atlantic cables were laid. The Mediterranean is comparatively shallow. A drying up of 660 feet would leave three different seas and Africa would be joined with Italy.

The British channel is more like a pond, which accounts for its choppy waves. It has been found difficult to get the correct soundings of the Atlantic. A midshipman of the Navy overcame the difficulty, and a shot weighing thirty pounds carries down the line. A hole is bored through the sinker, through which a rod of iron is passed, moving easily back and forth. In the end of the bar a cup is dug out and the inside coated with lard. The bar is made fast to the line and a sling holds the shot on. When the bar, which extends below the ball, touches the earth, the sling unhooks and the shot slides off. The lard in the end of the bar holds some of the sand, or whatever may be at the bottom, and a drop shuts over the cup to keep the sand in. When the ground is reached a shock is felt, as if an electric current had passed through the line.

ELECTRIC PROPULSION ON RAILWAYS.

A noteworthy inauguration has just taken place in the establishment of electric propulsion on the London, City, and South London Railway. In many respects the English electricians have lagged considerably behind their American cousins in practical electrical work, but of their newest installation they have every reason to be proud. It is the largest undertaking of its kind in the world, and it is believed that it will soon be followed by even more ambitious enterprises in England. The contractors of the line guarantee that for the first two years the traction expenses shall not exceed $3\frac{1}{2}$ pence per train mile. On the Metropolitan Underground Railway, where steam locomotives are used, the haulage cost is 10 pence per mile, with a train capacity of 450 passengers. These also require much larger tunnels and have to maintain a permanent way twice as heavy, to accommodate their steam and smoke-emitting locomotives. This estimate is based upon well-known facts. Out of every 100 units of power developed by the boilers 76 will be given out in electricity by the dynamos at the generating station; the average loss in the conductor will be, at the outside, another 5 per cent. rising from nothing at the central station to 10 per cent. at the extreme end of the line. Leakage, with the admirable system of insulation employed, will be almost nil. It is claimed that the motors give an efficiency of 90 per cent. and since no gearing is employed, the armatures being placed directly upon the driving axles, there should be a total estimate efficiency of 64 per cent.; if, in practice, the efficiency should not reach this high percentage, the accuracy of the estimate would not be materially impaired, as the stationary boilers can be fed by burning coal of a quality which is not much more than half the price of the coal necessary in steam locomotives. It is claimed that this railway has great advantages in the way of safety to passengers. In the event of a train breaking down, the current can be cut off from the section, and it cannot be run into by the train following. The passengers can get out and walk to the next station, which in no case exceeds a distance of one-third of a mile.

A NEW MARINE SIGNAL.

A new instrument, called the lucigraph, has recently been invented. It is used for signalling at night and commends itself especially to those engaged in mercantile pursuits. It is constructed on the principle of the stereopticon or magic lantern, and is worked by keys similar to the type writer, each key being attached to a metal plate stenciled in any desired character, such as a letter of the alphabet, or numeral. Each figure is painted with a character similar to that cut out of the plate to which it is attached, and when pressed, it projects the letter plate before the light, throwing the said character on a screen. For ordinary use an Argand burner kerosene lamp is sufficiently strong, as it is estimated that every five candle power gives a range of vision of about a quarter of a mile on a bright moonlight night. Of course, for higher and better service, the electric or lime light should be used in the lantern. The signals can be read by any one without instruction, and when code letters, like those of the universal international code, are used, it can be read by any one using the code book carried on

all ships. It also signals by any flash code, and by exposing the bull's-eye lens and working a special mechanism it can be made to signal quite as fast and to a greater distance than most of the patent flash code lamps in use. It has been exhaustively tested by practical men in all weathers, and has received much favorable comment. Captain S. M. Orr, of the London steamship "Port Donaldson," who has had it several months on his ship, between London and Australia, has sent in a favourable official report. The screen should be of white duck or of some bright colour. A house may be used, or anything giving a flat surface confronting the point to be signaled to, but the most efficient device is probably a diamond-shaped duck screen located on the bridge, which may be hoisted or lowered at pleasure, and held in place by stays so that it can be turned towards any point of the compass as required.

ODD THINGS ABOUT NUMBERS.

That there is luck in odd numbers is a popular saying, characterized by a delightful ambiguity which renders it equally correct in the case of either good or bad luck. The expression, however, is generally taken to mean that good luck may be attributed to odd numbers; and whether or not they may be justified in assuming that even ones must consequently be unlucky, many country women will only put their hens to set on an odd number of eggs, in the belief that otherwise no chickens would be hatched. Numbers both odd and even have always been credited with mystic powers capable of influencing the destinies of men. It is possible that this belief may have been due in the first instance to a sense of reverence and awe with which the immutable laws of mathematics were probably regarded by the ignorant; the fact, too, that the third fifth, or sixth note in an octave harmonizes with the first, may in some measure account for the superstitious importance with which the numbers three, five and six have been regarded; and the regularity and frequency with which certain numbers occur in Nature's handiworks may also have given rise to a belief in some mystic powers inherent in the numbers themselves. Thus, two is constantly before us in bilateral symmetry and the number of the sexes; five occurs as the number of petals which many flowers possess or the number of fingers and toes on each of our hands and feet—the thumb, of course, being reckoned as one of the fingers; and as an instance in which six occurs we may mention the hexagonal cells of a honeycomb. It is unnecessary to give examples of the mystical use of numbers in the Scriptures, for no one who has read the Bible can have failed to notice the frequency with which certain numbers are used, evidently intentionally and with a symbolic significance. In many of the legends which may be found amongst the North American Indians, two witches or medicine women play a prominent part. This may be merely a curious coincidence; but more probably it is the result of some forgotten superstition connected with numbers; for in the Old World two has an evil reputation; and so far as monarchs have been concerned, it certainly seems to have been an unlucky number, many of those who were second of a name having had troubled reigns or met with untimely fates. There is much superstitious regard for the number three in the popular

mind, and the third repetition of anything is generally looked upon as a crisis. Thus, an article may twice be lost and recovered ; but the third time that it is lost it is gone for good. Twice a man may pass through some great danger in safety ; but the third time he loses his life. If, however, the mystic third can be successfully passed, all is well. Three was called by Pythagoras the perfect number, and we frequently find its use symbolical of Deity ; thus we might mention the trident of Neptune, the three-forked lightning of Jove, and the three-headed dog of Pluto. The idea of trinity is not confined to Christianity, but occurs in several religions. In mythology, also, we find three Fates, three Furies and three Graces ; and coming nearer to our own times, Shakespeare introduces his three witches. In fact, that number of almost anything of which a fertile imagination can conceive a trio. In nursery rhymes and tales this number is not unknown ; and if we look back to the days of our childhood, most of us will call to mind the three wise men of Gotham who took a sea voyage in a bowl, not to mention the three blind mice that had their tails cut off by the farmer's wife. Perhaps there is some occult power in the number which governs the division of novels into three volumes, and induces doctors to order their medicine to be taken thrice daily. It is said that some tribes of savages cannot count beyond three ; but although they may have no words to express higher numbers, perhaps we should be scarcely justified in assuming that they are incapable of appreciating the value of the latter. Five is a mystic number which was supposed to possess great influence over demons and evil spirits. Probably primitive man—not unlike some of his descendants at the present day—reckoned up his little accounts on his fingers, ultimately using his hand as a symbol of five, and consequently attaching extra importance to that number. Seven was considered a holy number, and throughout the Scriptures it is frequently used as such. The seventh son of a seventh son was formerly looked upon as a natural doctor, who possessed miraculous powers of healing the sick, and could, in fact, frequently effect a cure by merely touching the sufferer. Even at the present day this piece of superstition has not died out, and occasionally one may still meet with these so called natural doctors, who fully believe in the marvellous powers ascribed to them. Among the Gaboon tribes there is a superstition that on the seventh day after the birth of a child, the woman who is nursing the mother is in danger of being converted into an animal by some evil spirit, if the necessary steps are not taken to prevent her metamorphosis. According to a popular superstition, seven years of bad luck may be expected by the unfortunate person who chances to break a mirror. There is a general belief with most people that they undergo some change every seven years ; man's life is popularly divided into seven ages, and formerly it was supposed that seven and nine were capable of exerting much subtle influence over men, the product of these two numbers being particularly powerful in this respect. Thus, sixty-three years was called the grand climacteric, and that age was considered a very important crisis in a man's life. Women, on the other hand, were supposed to be more susceptible to the influence of six. Probably it was this belief in the supposed influence of nine and seven on men's lives which originally gave rise to the custom of granting leases for multiples of seven or nine years. Long leases

are granted for ninety-nine or nine hundred and ninety-nine years, instead of one hundred or a thousand years ; and there is, we believe, a piece of superstition that otherwise the hundredth or thousandth year would be under the influence of the Evil One. Nine, a trinity of trinities, is the perfect plural, and is credited with mystic properties. As might be supposed, therefore, many superstitions are connected with it. The first unmarried man passing beneath the lintel-post of a door over which has been hung a pod containing nine peas, will marry the maid who placed it there ; and a piece of worsted with nine knots tied in it is considered a charm for a sprained ankle. Nine is not in every case a lucky number, however, for evil-doers regard the nine tails of the "cat" with very little favour. To see nine magpies is considered an ill-omen ; and the nine of diamonds has been called the "Curse of Scotland." Twelve is of constant recurrence. Thus, there were twelve tribes of Israel and twelve apostles ; a year is divided into twelve months, and the Zodiac contains twelve signs. It is a well-known piece of superstition that if thirteen people sit down to table together, one of them will die within a year ; and probably, as has been suggested, the origin of this belief may be traced to the Paschal Supper.

AMATEUR PHOTOGRAPHY IN INDIA.



T is now my pleasing task to redeem, partly, the promise made last month, and to show how you may hold a mirror up to nature in both a pleasing and instructive manner.

The old cookery-book counsel, to "catch your hare before you cook it," is as applicable to photography as to matters culinary. You must catch your hare in the shape of photographic apparatus before you can take sun pictures; and the work of selection is one of no mean importance. It is quite possible, nay, it is almost certain that, unless properly advised, a beginner will, in the laudable pursuit of economy, be taken in by some catch-penny advertisement, and buy some cheap rubbish that will induce a disgust for one of the most fascinating arts, and will not return a hundredth part of the cost when sold by auction. Not that I decry, by any means, cheap photographic apparatus; indeed, I am of opinion that the expensive, fairy-like cameras are a mistake when it comes to real work in a tropical climate; but I am, reluctantly, forced to state that there is more fraud in the cheap photographic trade than in almost any other and the motto, *cave emptor*, is one that should never be lost sight of. In England, where amateurs are as plentiful as the traditional blackberries, there is, of course, no difficulty in getting some experienced friend to make the selection, and it is for this reason that the text books are silent as to the choice of apparatus. Here, in India, the persons capable of advising rightly are as few and as far apart as plums in a charity pudding, and the only attempt made to supply the want has been a series of papers in the *Journal of the Photographic Society of India*—a publication unfortunately too technical for the lay public. To compress all that should be said on the subject within the limits of a magazine article is, necessarily, a task of some difficulty, but I trust I shall be able to direct you so that you may attain both economy and efficiency with the least trouble.

The requisites for picture making by the agency of light are—(1) a dark room, (2) camera, (3) lens, (4) tripod, (5) a shutter for rapid work, (6) dry plates, (7) developing dishes, with necessary chemicals, and (8) printing materials. I shall consider each of these separately and shall deal with them, individually and collectively, as concisely as I can.

Dark Room.—The term is not strictly accurate, though it has attained universal currency. Properly speaking, what is now known as the "dark room" should be called the "developing room," or, if a descriptive appellation be considered desirable, the "red chamber." However, there is nothing very much in a name; the essential is the colour of the light that illuminates the working apartment, and that colour must be red or orange. To explain the reason for this would carry me too far into the regions of physics, and an essay on the action of

light would be outside the scope of this paper. But it must be evident that to watch the development of the latent image we must have light to see, and that that light must have little or no action on the sensitive plate. Now with gelatino-bromide plates (*i.e.*, the "dry plates" commonly used now) the orange and red rays of the spectrum—the rainbow band of colours into which white light may be broken by a prism—are practically inoperative, or non-actinic as they are technically termed, and the light of these two colours is therefore employed to work with. If you have a room to spare, fit it up as a dark room by blocking up all openings, excepting only the door to be used for entrance and egress, and the window to be used for illumination. Before the door hang up a curtain of American oil-cloth, which will effectually cut off all stray rays of light, and screen the window by carefully attaching to the framework one thickness of the cloth known as golden fabric (all photographic warehouses stock it) and one of ruby paper. Take special precautions to see that no white light comes in at the edges of the screens, for the entrance of the enemy will be fatal to good work. If you have no spare room, work at night by the light of a ruby lantern, such as you may purchase for a rupee or two from any dealer in photographic materials. There is something to be said in favour of the practice of working at night, particularly during the summer, when development can be safely carried out with open windows. But work under such conditions is tiresome, and is seldom systematic; at critical moments the chemicals are never handy, and very seldom is the photographic result perfect. A proper dark room, on the other hand, has everything in its appointed place, is always available, and can by *punkahs* be made as cool as any room in the house. In any case, whether daylight or lamplight be employed, you must have a table for your trays, a sink or other receptacle for used-up solutions and dirty water, and a good supply of pure water for making up developers and washing plates. The arrangements may be of the simplest character, but, provided they serve their special purposes, will do as well as the most elaborate appliances. A good idea of a perfect dark room may be obtained from a visit to the Photographic Society's rooms at No. 57, Park Street, Calcutta. All amateurs I am sure will be welcome.

The Camera and its appurtenances.—There is scarcely any part of an amateur photographer's outfit about which such mistaken notions exist as the camera. Not only outsiders, but even photographers of some standing deem excellence inseparable from French polish and elaborate brass work. Of course, cameras made by makers of such repute as McKellen, Watson, Hare, Rouch, Meagher, Gotz, Thornton, Sands and Hunter, Marion, and others of equal standing, have of necessity the highest finish, but there is no reason why rough-looking instruments made by firms of less note should not be as good for real hard work as the very best arrangement of brass and glass. Provided a camera has certain "movements" and is light tight, it is perfectly immaterial whether the outward appearance is shabby. The essentials are (1) square bellows, or bellows that do not taper too much, (2) reversing arrangement for taking pictures, either vertically or horizontally without moving the camera, (3) double extension baseboard fitted with either endless screw or rack and pinions for focussing, and (4) horizontal and vertical swing at back. Of the first requisite I need

say very little, for opinions are still divided as to the merits of square and conical bellows. The tapering form has the advantage of lightness and compactness, as well as of offering less resistance to wind in out-door work. But in using short-focus lenses, unless the folds not required for use are kept by means of rubber bands or other contrivances close to the front, it has an unpleasant knack of cutting off the margins of the picture. Parallel bellows, if they avoid this defect, have still the drawback of greater weight and of offering greater resistance to wind. As, however, weight in this country is of little or no importance—the patient coolie or, may be, that much-talked-of, though seldom-met individual, the ryot, bears the burden, and not the amateur—the advantages are, in my opinion, all on the side of strong and comparatively heavy camera with parallel bellows body. As regards the reversing back, it may be said that it is the most indispensable adjunct of the camera. Without it the camera has constantly to be detached from the baseboard and re-fixed according as the picture to be taken has its longest axis either vertical or horizontal. The inconvenience of this scarcely needs demonstration; and most modern cameras have a reversing back. To admit of its use the camera has to be square, and therefore slightly heavier than when of oblong shape, yet the increase in weight is so slight as to be disregarded. In cameras fitted with this reversing arrangement, that portion of the back which contains the focussing screen of ground glass, can easily be detached from its place, turned round at right angles to its former position and immediately sprung into place; the whole operation being the work of a second. The third desideratum in a good camera is the extending baseboard. This is a necessity when long focus lenses are used—they must be employed when correct perspective is wanted—and very few cameras are now made which do not allow the bellows body to expand to twice the length of the largest plate used. Only instruments of an antiquated type extend less; and with them I advise my readers to have little to do. The last essentials are what are technically known as “swing-backs.” They are arrangements for throwing the back of the camera out of the perpendicular and of advancing the back more on one side than on the other. I shall describe their uses hereafter, but, in the words of the advertisement, when an amateur buys a camera he should see that he gets the swing-backs.

An indispensable adjunct of the camera is the “dark slide,” or the case in which the sensitive plate is stored for ready exposure when occasion arises. In England and this country the “book” form of slide is in general use, but in America the solid block type, sold among us with the cheaper make of cameras, stands highest in estimation. I cannot say that one is distinctly better than the other. If the solid slide is safe, the book form is easier to use, and with well-made dark slides we have not much to fear from stray light. In the better class of slides, the shutters are hinged with leather or canvas so as to fold into a little space when drawn out—a great advantage in the large sizes. Whichever type of dark slides is preferred, care should be taken to see that no light enters where the shutters draw out: in the cheaper class of apparatus the precaution may not safely be disregarded.

The tripod or, as it is familiarly termed, the leg, is a *vexatio quæstio* to most amateurs. Should the tripod be in one piece, or should it fold sufficiently to go into the waistcoat pocket; should it

be heavy enough to stand a gale, or should it weigh under a couple of ounces, are questions that are asked almost daily, and about which each one has his own opinion. My own experience points to the use of a stand that has a sliding leg adjustment so as to allow of its closing up to half its full size. It is known as Ashford's patent, and is one of the very best tripods for lightness, strength and rigidity—three essentials for a perfect "leg."

The lens.—My advice as to the choice of a lens is the opposite of that given for the selection of cameras. I said that, provided certain requisites were supplied, it did not much matter by whom the camera was made or how rough was its appearance; in the case of lenses I must emphatically warn you against the purchase, from other than trustworthy persons, of any instrument that does not bear the name of one of the well-known makers, Suter, Ross, Grubb, Dallmeyer, Steinheil, Wray, Swift, Chambers, Morrison, Voigtlander and the Taylor Brothers. I do not mean that lenses made by other makers are necessarily bad; I am perfectly aware that some of the nicest objectives can often be picked up cheap that bear no name at all, or one of little note. But the testing of lenses is a delicate business and one that requires a greater knowledge of optics than is possessed by most amateurs, and until you are thoroughly qualified to judge, it will be better to trust to a maker's name. You cannot get an inferior or faulty instrument from any of the opticians I have named.

There are, however, various types of lenses, each made for a specific purpose, and it is necessary that a selection be made before purchase. For amateur work generally and for out-door photography in particular, the best lens is of the rapid rectilinear or rapid symmetrical class. These are "doublets"—which means that there is a lens at each end of the brass tube or mount—and are specially suited for architecture. They are very rapid; sufficiently so for portraits and "instantaneous views;" but if a slight curvature of straight lines near the margins of the picture be not an insuperable objection, I should recommend for landscape work a single achromatic lens. It gives crisp bright pictures, and the definition is exquisite. Neither of these lenses can be used in confined situations, as they require a certain distance between the camera and the object to be photographed in order to bring the image within the limits of the plate. For such work a "wide angle rectilinear" is a *sine qua non*. But as it will very seldom happen that the camera cannot be placed sufficiently far from the subject and as wide-angle lenses have the objectionable property of distorting the perspective by making the objects in the foreground too large, this class of objectives had best be left alone. The portrait lens is also a dangerous instrument in inexperienced hands. It came into existence in the old collodion days, when it was an object to minimise as much as possible the duration of exposure, but now that dry plates are obtained commercially of such exalted sensitiveness as to make instantaneous work possible to the rawest novice, extreme rapidity in a lens is neither necessary nor desirable. The portrait lens, it is true, will admit the maximum of light, but the advantage is more than counterbalanced by unequal illumination and by defective definition of objects in different planes unless the aperture is reduced by means of "diaphragms"—thin strips of metal with openings of

different sizes cut in them. These are inserted into slots cut in the lens mount, and are used to secure sharper definition of objects in different planes. It is not necessary now to explain why definition is improved by diaphragms, as that would encroach too much on the region of optics, but you may accept as a fact the statement that the smaller the opening of the diaphragm the greater the depth of focus over several planes.

In using diaphragms it must not be forgotten that the smaller the aperture the less the light admitted to the plate, and consequently the greater the exposure necessary. But it is not only the size of the diaphragm opening that regulates the working intensity of a lens. The focal length has also to be considered, since the intensity of light varies in inverse proportion to the square of the distance from its source. The rapidity of a lens is in fact determined by the relation of the diaphragm aperture to the focal length, or by what is technically termed the "angular aperture." To gauge the rapidity of a lens with any stop, after focussing a distant view, measure the distance between the diaphragm slot and the ground glass and divide it by the diameter of the diaphragm. The quotient with f as the numerator will indicate the angular aperture. To compare two or more "stops," or diaphragms, square the denominators of the angular apertures, and the proportions borne by the resultants to each other will give inversely their relative rapidity. Thus, with a lens of sixteen-inch focus, we wish to compare the values of three stops, one of two-inches aperture, the second with one inch and the third with half-an-inch opening. Dividing the focal length by the openings we get $f8$, $f16$ and $f32$ as the indices of the diaphragms. Then by squaring the denominators we find their relative values to be inversely in the proportion of 64, 256 and 1,024; in other words, the rapidity of the second is one-fourth that of the first and the intensity of the third one sixteenth of the first and one quarter of the second. The necessity for these calculations will become obvious as we proceed further on.

Shutters.—These are mechanical contrivances for uncovering and closing the lens quicker than can be effected by the hand. For most ordinary work taking the cap off and putting it on again in its place in the lens mount is done by hand, and even in seascapes, where breaking waves have to be depicted, the hand can do the uncapping and recapping rapidly enough for all practical purposes. But for street scenes, or when objects in rapid motion have to be photographed, mechanical devices for exposing the plate for fractions of a second are a necessity, and are supplied commercially in scores of different forms. It is impossible for me to name or describe a tithe of the shutters in the market; and he would indeed be a bold man who would venture to say which is the best. Still, I may say that nothing has yet been devised to beat the plain "drop shutter" for simplicity or economy, though for landscape work one of the go-and-return varieties offer many advantages.

Of the requisites for developing and printing, I shall speak when I deal with these subjects in a future issue of this magazine.

G. E.

THROUGH THE GARO HILLS ON A CHAIR.

PART I.



WHEN in the cold weather of 1880, I set out in company with one or two others, to take a walk across the Garo Hills from Tura to Shillong, no other European lady had ever attempted the journey, which was not considered an easy, or indeed a safe one, even for a man. The roads were known to be infested with elephants, tigers, leopards, and other more or less disagreeable denizens of the jungle, and a considerable amount of apprehension as to my safety and comfort was expressed by my friends, who did not hesitate to predict that I, at any rate, would not carry my project through; but at the first sight of an elephant or a tiger would return to Tura. The fact that the latter animal was to be found in the neighbourhood of this station was forcibly demonstrated a few days before we left, when an enormous tigress was speared one morning by one of the villagers whose cattle she had attacked, and who brought the dead body over to the bungalow where we were staying. This little circumstance, added to the warning voices of the prophets of evil, did not tend to reassure me, and I had, moreover, an uneasy impression—which fortunately I was never in a position to verify—that should ‘stripes’ suddenly make his appearance on the way, the bearers of the chair on which I was to make the journey, would as suddenly drop their burden and seek their own safety in flight.

This chair, which had been rigged up for me by my kind hosts at Tura, was an ordinary American folding chair with carpet seat, and to it were attached strong bamboo poles, by which it was carried by coolies, one in front, and one behind. I had at first, in common with the rest of the party, intended to make the whole journey on foot, but my friends dissuaded me from this plan, for which I had cause to be very grateful, for some of the roads through which we passed were rugged beyond my wildest imaginings, and I was conscious of a gratifying sense of superiority as from my comfortable seat, I looked down on my companions who were painfully struggling on foot.

Our escort consisted of sixteen coolies to carry our baggage; two Garo constables, who knew the road and could interpret for us, and command respect in the different villages, three of our own servants, and a syce engaged en route. Added to these, we had three baggage ponies and my riding pony, which latter, by reason of the steepness of the roads, might as well have been left at home, for I never once mounted him from the time we set out.

Most of the men had knives and we had two rifles, partly for protection, and partly for sport. Thus equipped, we started at about 10 o'clock in the morning, the Commissioner and his wife, who although perfect strangers had shown us the most friendly hospi-

talities—standing with some of their friends at the door of the bungalow to wish us God speed.

It was a fine morning and the road was easy, and in the course of our march we encountered nothing more formidable than a few natives innocent of anything in the way of apparel but some feathers in their hair, and a string round their waists. They carried long spears and were not altogether pleasant to look upon, but they greeted us with smiles and evident interest, exchanged a few words with the constables and went on their way. Towards the end of this March, the road became very beautiful, openings in the jungle showing us in places splendid views of the distant hills, and of foaming torrents rushing over huge boulders in the half dry bed of a river.

At about half past four we reached the end of our first stage, and found ourselves in the village of Durabaub where we were to put up for the night. Immediately on our arrival the people flocked out to see us and with many kindly smiles, and still more kindly acts, contrived to make us feel that we were welcome.

In every Garo village there is a large house set apart for the bachelors of the place; it is called a *nockfunt* which is, I believe, being interpreted, "bachelors' house." This house is invariably given up to travellers seeking shelter for the night and in a short space of time, we, and our baggage, were safely housed.

The house consisted of one very large room, capable of being divided into two or more, made entirely of bamboo, and having a door at each end and a large fire-place, or hearth, in the centre, but alas! no chimney. It was built on stakes—one end on the side of a hill, the other about eight feet from the ground, and the only way of getting into it was by means of a thick bamboo, notched here and there, to serve as a ladder, and a thin cane by the side to hold on by. These *nockfuntis* vary a little in size in the different villages, but in most of their essential features they are all alike.

We had not been settled in our room long before some of the more daring of the people came in to interview us, bringing with them offerings of eggs, fowls, chou (a native drink), and grain.

Milk is unobtainable in the Garo Hills, it being against the religion of the people to milk their cows. We therefore, had recourse to condensed milk, except when we used the yolk of an egg which, to my thinking, is a much nicer substitute. Bread too, is unfortunately, not procurable, so we had to be content with luncheon biscuits of which we had taken a good supply, together with many other necessities such as tea, coffee, bacon, sugar, soups &c &c.

Our first dinner consisted of hare soup, roast fowls, and an omelette with jam, and it may be taken as a fair sample of all our dinners during our journey, for except that we rang the changes on hotch-potch, julienne, and hare soup, and that on two occasions we varied the *menu* by having duck instead of fowls, and twice had the luxury of some fish, we had the same fare for nineteen days.

Fortunately the poultry was excellent, and in this respect was quite unlike the "moorghi" of Calcutta notoriety, and as our appetites were considerably sharpened by the air and exercise, we did not quarrel with the monotony of our fare, but on the whole, lived remarkably well, and had every reason to be grateful to the simple, kindly, hill people who were always ready to supply what we wanted in the way of food.

In appearance the Garos are not prepossessing. The men are generally short and thick, whilst the women are the ugliest I have ever seen, and they add greatly to the repulsiveness of their looks by loading their ears with many rings of such size and weight, as often to drag down the lobes until they reach their necks. They are soft mannered, good natured, and courteous, and had their cleanliness been equal to their other good qualities, my trip would have proved far more pleasant and beneficial than it did. As it was, I passed many weary hours of every night trying unsuccessfully to defy the armies of vermin which take up their quarters in the Garo *nockfunti* till at last worn out and beaten, I fell into a fitful sleep only too soon to be awakened at dawn by the sound of voices outside, and the faint glimmerings of a light which came through the cracks of the bamboo walls, and which warned me that it was time to be up and doing.

I may say here, that the Garo *nockfunti* is entirely destitute of furniture of any description, the traveller being expected to bring all such superfluities with him. As one of our main objects when organising our trip had been to keep down excess of luggage, we had contented ourselves with as little as we could possibly manage with, small camp bedsteads and two or three camp chairs being all we considered absolutely necessary. Our boxes were our tables, our only candlestick an empty whiskey bottle, while our table requisites consisted of a few plates and a dish of enamelled iron, cups and saucers of the same useful material, glasses, and some small tins for pepper and salt.

After a substantial breakfast of bacon, eggs and biscuits with coffee, we packed up our traps, loaded our ponies, and set out on our second day's march.

Fresh coolies had been engaged in place of those who had carried our things on the preceding day as each set contracts to go only one stage, putting down their burdens on arriving in a village and leaving you to make arrangements on the spot for the next journey, and only on one or two occasions had we any difficulty in getting together the requisite number.

The morning was lovely, and our road lay through very pretty, but extremely difficult, country. In the course of our march we had to cross the beds of several very picturesque rivers, choosing, at midday, a big spot among the boulders on which to sit while the men rested, and our servants lighted a small fire and warmed up for our luncheon some soup, which had been prepared the previous evening.

We arrived without adventure at the village of Danagiri in the afternoon, and from there we started betimes the next morning for Darengeri, a stage of eleven miles, through beautiful forest scenery, rich in orchids of various descriptions, and, like the road to Danager, varied every now and then by mountain streams. Road, in the ordinary sense of the word, there was none. A tiny footpath, hardly discernible except to the experienced eyes of the Garos themselves, was all there was of the kind. In some places even this was lost among rugged mounds and large boulders, which were scrambled down by men and horses with an agility perfectly marvellous, the former laughing merrily whenever they encountered a more than usually steep decline.

For myself, I tremble even now at the remembrance of the numberless shocks I sustained, as my bearers tilted me up with an amount of unconcern which would have been ludicrous, had it not been a little alarming. I held on desperately to the arms of my chair, and sometimes closed my eyes that I might not see the difficulties of the path before me, and I was indeed truly thankful to find myself not only alive, but sound, when, in the afternoon, we reached Darengeri where the villagers turned out to greet us with the usual Garo hospitality. On one small mind among them I fear I made a very painful impression which will probably remain one of those uncanny memories of childhood from which very few of us are altogether free. Whilst our dinner was in preparation, I went out on a tour of inspection in the immediate vicinity of our abode. The people, having sufficiently appeased their curiosity regarding us, had retired into their huts and were engaged in their usual vocations. A few yards from the door of one of these huts was a child of about three years of age, amusing itself by shaking sand or gravel in a sieve, in imitation of the way in which its mother was in the habit of sifting grain. So absorbed was it in its occupation that it did not hear my approaching footsteps, and I stopped, unobserved, within two or three yards of where it was standing, and stood watching it.

Suddenly it looked up and saw me; for an instant it seemed paralysed with terror, then uttering a shriek, it dropped the sieve and ran to take shelter in the hut, but in its trepidation, the poor little thing tumbled and fell, face-downwards, on the ground. It speedily regained its feet however, and rushing shrieking to its mother, whom its cries had brought to the door, hid its little face in the piece of cloth which did duty for an apron, and resolutely refused to look again in my direction.

Clad in the unpicturesque garb of an Indian traveller who has thrown considerations of appearance to the winds in favour of comfort and suitability of apparel, I must have appeared a sufficiently terrible object to any infant who had never seen a white woman, and had not even conceived of a being not only of a different color from itself, but clothed from head to foot in garments the like of which had not been seen in the village before. The hideous "sola topee" enveloped in blue gauze, which I wore as a protection from the sun, the long dark ulster, the booted feet and gloved hands, must have combined to make up so strange a figure to a child beholding it for the first time, that it is quite easy to believe that it took me for a visitant from another and a worse world, and that to its dying hour it will believe that, on that day, it saw the "bouie," or ghost with which the Indian mother is so fond of threatening her child.

JENNIE P. FURRELL.

JOHN SEYMOUR'S MISTAKE.



"CONGRATULATE me, Ted!"

"I suppose I need not ask on what score—I can see it in your face! A man always has that sublime look when he's done something supremely foolish. Of course she has accepted you?"

"She has," was the rejoinder, in a tone of deep gratitude, not unmixed with reverence; and the speaker lapsed into a brown study, in which the soft dark eyes of the girl he loved and the confiding class of her hand as it lay in his own, played a prominent part. How sweet she had looked in her pure white dress, with the lamp light falling on her sunny braids! Was there ever such a lucky fellow? he asked himself again and again.

John Seymour and Ted Preston had been college chums together, though the former was some ten years older than his friend. Both had been educated for Her Majesty's Civil Service; but Ted, who loved ease above everything, had found more congenial employment in spending the thousands an obliging old uncle had left him, while John was grinding away in a stuffy kutcherry in the dusty province of Oudh.

Two months before our story opens the elder man had come home on a well-earned furlough, part of which he had promised to spend with his old friend Preston. Here he had met an older friend in the person of Edith Blair, the daughter of his father's curate. How well he remembered the romps in the old rectory garden, where Edith was his constant playfellow and friend. The quiet corner in church where he used to sit and watch her, as the many-coloured lights from the window above played about her white dress and in a saintly halo round her pretty head! What a demure little maiden she was on those occasions, and how utterly unconscious of the existence of such a person as Johnny Seymour!

Those days were over and gone now, and Edith resided with a sister of her dead father's, a kind old soul who was entirely devoted to her beautiful niece. John had not met his old playmate since his college days, and if he had ever pictured those bygone scenes to himself it was as one who looks through the wrong end of a telescope, so far off did they appear. Now, after the dreary round of Anglo-Indian officialdom, her simple grace struck him as something almost

Too bright and good
For human nature's daily food,

and he had made great capital out of their former friendship, and drew largely on the dear old times in his daily intercourse with her. They had so much to talk over, so many things to tell each other, that Ted, who was a confirmed bachelor, could but groan and shake his head sadly, while he assured himself that he knew very well how it would all end.

He did this now, at his friend's confirmation of his fears, and muttered dejectedly, "You are done for, old fellow; another good man gone!"

In the blitheness of his heart John could but laugh: Ted did not know his Edith, or he would not talk in that way. He put this thought into words, and laughed again. "Well, if it comes to that you don't know much about her, either," rejoined his friend caustically. "You left her a child, you come back and find her a young lady of twenty-three, or so. Who knows how her character may have altered in that time?"

For the life of him John could not have explained why, at that particular moment, an almost forgotten figure rose up before his mind's eye. It was that of a disagreeable, caddish sort of a boy, a cousin of Edith's, who, being a ward of her father's, had lived with them, and had represented the serpent in that otherwise blissful paradise. John had never been able to get on with Roger Treherne; there had always been an undeclared but clearly understood, rivalry between them which, he recalled it now with a pang, Edith had been rather inclined to foster. Where was the fellow now, and was he as priggish as ever? He would ask Edith on the first opportunity.

These thoughts passed through his mind in much less time than it has taken to record them, and in spite of himself his voice assumed a graver tone as he turned to his friend.

"Look here, Ted," he continued earnestly, "you don't know Edith as I do. It isn't possible for her to be any thing but true and good; she is the dearest girl in the world, and the best—and to think she is willing to have me, and to go out to India!" Ted could but listen, and groan inwardly at his friend's infatuation. Could this be John, staid old John, the prop of his youthful days, and his ideal of all that was reasonable and steady? Poor old John! He might well say that, but he knew not with what good reason until two days later his light-hearted friend entered, with haggard face and wild eyes, and throwing himself into a chair, murmured brokenly, "Oh Ted, Ted, it is all over; I couldn't expect her to link her bright life with a man like me. You were right, old fellow, after all."

What had happened was briefly this: John had promised to call for his betrothed and take her for a drive; she had arranged to be ready at four, but in his impatience he had gone half an hour before the time. Mrs. Drury was resting, the maid told him, and Miss Blair was dressing. Would he come in and wait? Of course he would. Sitting there in the old-fashioned little parlour, his eyes fell upon a crumpled paper on the floor. It had been written on, and he opened it mechanically, and without thinking of what he was doing began to read: "my dearest!" Ah! she had begun a letter to him, then? She missed him and longed for his presence, as he did for hers. Meanwhile she beguiled the hours by writing to him. How delicious to read her pure thoughts, to see what her heart said to him in its lonely hours! Afterwards he would confess his fault, beg to be allowed to keep the letter, and kiss the dear hand that penned such loving words to him.

"My dearest," (he began again.) "How surprised you will be at the news I have for you, and how vexed you will be at not having been here! Old S. has come to the point at last, and I have agreed to all his proposals, for how could I help myself?

It is only for a little while, though, and then I will show him his mistake. Meanwhile you must keep out of sight, it would be folly to show our hand yet.

"Always, dear R.

"Your own E."

Stupefied for the moment, he read it over again, but in a dazed sort of way. What did it all mean, and who was 'Old S.'? Was it a joke, or was he going mad? Did the 'E.' mean Edith, and did the 'R.'—great heavens! was it Roger? There could be no doubt about the handwriting; he knew every letter of it only too well.

He seemed to be turning to stone, his face pale to the very lips, his hands still grasping that tell-tale letter. "My dearest!" he muttered again. "Your own Edith!" It was ridiculous, intolerable, and yet there it was, not for him, but for some one dearer.

A step overhead roused him, after what seemed a lifetime of bitterest agony. He pushed the letter into a book and let himself out; he must get away before she came down, lest he be tempted to say some hard things which he would be sorry for afterwards. She had deceived him cruelly—nothing could alter that; so where was the use of discussing it? Let her go in peace.

So it was that he said nothing to Ted beyond the few words given at the end of the preceding chapter, which had been wrung from him in his agony. He could not bear to tell him how deeply he had been wronged, how wantonly deceived. Of course the letter had been written to Roger, and the 'Old S.' referred to himself. It galled him exceedingly to think of his old enemy laughing about him with the girl he loved; but since they meant to have the game in their own hands at last, let them have it at once. Edith could never be anything to him now. Should he tell her so at once, or wait until he had left the country. If he wrote now she might try to see him—try to explain away what he felt could never be explained to his satisfaction. He could not meet her pleading eyes; they had made a fool of him once and might again. Had he not loved her? Also, did he not love her now more than all the world besides? How beautiful she was, and how false! God help him!

Ted, coming in hastily found him surrounded with packages, while a cab stood waiting at the door.

"Hallo! what's up now?" he asked in amaze.

"Nothing—only that I have been idling too long. Work is the thing. I want, and I am off to India by this mail. Good-bye, old chap; take care of yourself."

"A good fellow spoiled," muttered Ted to himself later, as he sat over his lonely pipe with his feet comfortably fixed on the mantel piece. "It's just as I said: Eve wasn't the last woman who ruined a man's life." But he forgot the serpent who was at the back of the woman!

* * * * *

Nothing is so likely to happen as the unexpected, and it was certainly with no expectation of meeting his old love that John Seymour packed up his belongings one steamy day in July and started for the breezy heights and cuckoo-haunted glens of Naini Tal.

He had not been home since the shattering of his love-dream five years before; she was there, and where she was he had no desire

to go. Thus he told himself again and again, and it was with this feeling in his heart that he came suddenly face to face with her at a picnic on the hospitable summit of Aya Pata. What a little world this is after all! He had thought of her as being thousands of miles away, and here she was at his elbow! It was startling, certainly; but while he was meditating how he could escape unobserved, his hostess was bringing her up to be introduced. "Miss Blair!" Then she had not married the cousin! Had he jilted her in his turn? With all his fine airs, he was not a man to be trusted, John felt sure.

With these thoughts surging through his brain, he scarcely noticed the stiff little bow she gave him, and was only aroused by his hostess saying, as Edith moved away, "I want you to be particularly nice to Miss Blair; she is quite the nicest girl I have met."

"When did she come up? I mean, how did you come to know her?" he almost growled.

"Last month. The Wendells are here, and she accompanied them, as Clare's governess. Poor girl, she is an orphan, and without a friend in the world, I am told. One can see by her face that she has gone through a lot of trouble, and I want you to help me to make her stay pleasant."

"I am afraid you let your kind heart run away with you, Mrs. Linton," was the somewhat cold reply. "Young ladies are more apt to cause trouble than to suffer themselves."

"Fie, Mr. Seymour! that's very unkind of you, not to say unfair! Mrs. Wendell, who has known Miss Blair for years, speak, of her in the highest terms; she is gentleness itself."

It was on his lips to say, 'Ah! you don't know her as I do,' but he refrained and gnawed his moustache savagely; while Mrs. Linton, having done her duty hurried off intent on household cares.

How was he to get through the day? It was all very well to try to appear oblivious of Miss Blair's presence, since there could not be even the semblance of friendship between them; but the fact remained that not a word or look escaped his notice, and he hailed a shower that scattered the whole party like a flock of birds, as a perfect godsend. It had been so bright when they started, with the clear waters of the lake dancing in the sunlight, under a sky of brilliant blue, that few had taken the precaution of bringing water-proofs. Those who had, made themselves as comfortable as might be, while the rest sought shelter anywhere. To John Seymour had come the opportunity he had been seeking. He would go home and pack up to return to duty, since his holiday had been spoiled for him. No need to get rheumatism, though; and the downpour increasing, he stepped into the shadow of two rocks that formed a rough cave. A figure started back at the entrance, and drew her skirts closer.

"I beg your pardon!" he ejaculated, stepping back hastily. "I did not know you were here, Miss Blair."

"Don't go!" she implored, "let me! The rain won't hurt me in the least, and you have been ill."

She came forward and prepared to step out into the deluge, but he restrained her.

"No; I suppose this place is big enough for us both—for a while at least," he said stiffly.

"As you like; but it was you who made the first move to go," turning away coldly.

There was silence between them after that. He was wondering how she knew of his recent illness. What did it matter to her whether he got wet? It was very kind of her to trouble.

He turned at last from contemplating the weather, the leaden skies, and desolate-looking trees with their dripping boughs, and glanced furtively at his companion.

"Yes, she was looking weary and sad; it was no fancy of Mrs. Linton's. He wondered if Roger had treated her badly—he should pay for it if he had! But how was he to find out?"

"You have changed a good deal, E—Miss Blair," he said at last, by way of starting the conversation.

"People generally do, with the lapse of years," she rejoined coldly. "I think the rain is lighter; I must return."

She came forward, and stood waiting for him to let her pass. How sweet she looked still! He felt his heart bow down before her as of old, and put out his hand impulsively.

"Edie!" he said brokenly. "Edie!"

"I don't understand you, Mr. Seymour. I am Miss Blair except to friends. Let me pass, please."

"Not until you have answered me one question! How could you have written that cruel, cruel letter?"

"I think the glove is on the other hand," she said stiffly. "Mr. Seymour cannot possibly have forgotten that it was he, not I, who wrote the letter in question."

"I?" he exclaimed in tones of horrified incredulity. But she had rushed past him, and was hurrying down the hill in the rain.

He had no alternative but to rush after her. This mystery must be cleared up, or he should go out of his mind.

It is one thing to will, but quite another to do, as he found when the most diligent search failed to reveal her whereabouts. She evidently knew more about the place than he did, and could find her way in the densest fog; nevertheless she should not escape him.

Strong in this determination, he called next day on the Wendells, and asked for Miss Blair.

"You are only just in time," was the reply, "for Miss Blair is leaving us this evening."

"Let me see her alone," urged John earnestly. The Wendells were very old friends, and he felt he could ask so much. "Don't tell her that I am here, but let me see her. I will explain afterwards."

The little lady nodded, with a meaning smile. "I'll see that she comes. Clare and I are going for a little walk. Come, childie." And the door closed upon him.

Sitting there his thoughts flew to that other parlour across the sea, and to the young man who had waited there in happy expectation that was so quickly to change into bitter disappointment. The remembrance was too galling, and he began hastily turning over the books on a side-table. Ah! here was the new story he had heard so much about. "The Rival Painters." He had never read it, but was familiar with most of the characters—poor Rudolf who was clever, but unfortunate; the old Jew Solomon, and his sweet daughter Elizabeth, who was the gem of the story. He would look through it while he waited. Heavens! what was this?

There, on the printed page before him, lay the very letter, word for word, that he had found in that little parlour long ago. There could

be no mistake about it! Was not every syllable burnt into his brain? What did it all mean?

In the midst of his confusion the purdah lifted, and Miss Blair came in, her eyes red and heavy, and her breast still heaving with suppressed sobs. "Edith!" he cried, eagerly starting forward, book in hand, "tell me who wrote this! what it is about?" His face was so pale and drawn that she took pity on him, and, instead of retreating, came forward and bent over the open page.

"That?" she said indifferently, "is a book I wrote some years ago. I don't know how it came on this table. Let me take it away, Mr. Seymour."

In a moment the whole thing flashed upon him. Oh! his blind folly! Would she—could she—ever forgive him? He groaned aloud in anguish of spirit.

"You—you are ill?" said the lady anxiously.

"Not ill—crazy, I think; or something very like it. Tell me, Edith, were you writing this book when—?"

"When you went away? Yes, Mr. Seymour."

"And you dropped a copy of this letter on the floor, in Mrs. Drury's sitting-room, where I found it! Can you ever forgive me, Edith?"

"My poor John," she cried, holding out two trembling little hands.

* * * * *

All this happened long ago, for the Seymours will soon be celebrating their silver wedding. John makes a model husband, and shows, by the perfect confidence he reposes in his wife, that he has not forgotten how two lives were almost ruined through a single mistake.

MAITLAND HOPE.

DOLLARS AND SENSE,*

OR,

HOW TO GET ON.

[SECOND NOTICE.]



BOOKS of advice are apt to be dry and uninteresting reading, but no such complaint can be made regarding the work under notice. It abounds throughout with lively anecdotes and amusing reminiscences, gathered in the course of a fifty years' experience with both the rough and the smooth sides which the world presents in turn to those who are early compelled to 'hustle' for their own livelihood.

And if it be true, as it undoubtedly is, that the best study of mankind is man himself, then the next best thing is to study the methods by which a successful man has fought his way to the front, and earned for himself a respected name amongst his compeers. The main-springs of Barnum's success have been his indomitable pluck and energy, and his determination never to be cast down by adverse circumstances. Like the proverbial bull-rush he might, perforce, bend to the gale of misfortune—and in the course of his chequered career he has accomplished a lot of 'bending'—but he has always been ready to spring back into position at the first symptoms of clearer weather. Disaster after disaster, as soon as sustained, was repaired with promptitude and energy, and the loss of one central object of interest was always made good by the discovery of another. As an instance of this, take the following. In November 1887 a large portion of the menagerie, which was at that time located in winter quarters at Bridgeport, Conn., was destroyed by fire. In spite of strenuous efforts to subdue the flames, they spread so rapidly that there was no time to rescue the animals. Of the herd of thirty-four elephants, thirty escaped, and one lion, Nimrod, a fine specimen and great favorite, was led out by his keeper. With these exceptions, the entire menagerie perished in the flames. The famous elephant, Gracie, rushed into the Sound, where she was found the following morning swimming exhaustedly, but she died from cold and exposure while being towed to shore. The white elephant determinedly committed suicide. Liberated with the rest of the elephants, he rushed back into the flames. At 2 a. m.

* "DOLLARS AND SENSE;" or, *How to Get On.* By P. T. BARNUM. To which is added *Sketches of the Lives of Successful Men who Rose from the Ranks.* By HENRY M. HUNT. And an Appendix containing MONEY, WHERE IT COMES FROM, AND WHERE IT GOES TO. Copyright, by H. S. ALLEN, New York. Price, Rs. 8. Indian Agents: NEW YORK AGENCY, Calcutta, 32 Dalhousie Square, S.

the following day the news was received by Barnum, and his wife gives the following account as to how he received the news :—

"I roused Mr. Barnum, who turned on his pillow just enough to focus one eye at me as I stood shivering in the chill morning air. 'What is it?' said he. 'A telegram,' said I. 'What about?' said he. 'I'll read it to you,' said I.

"BRIDGEPORT, Nov. 21, 1887.

"To P. T. BARNUM, Murray Hill Hotel :

"Large animal building entirely consumed. Six horses in ring barn burned, together with entire menagerie except thirty elephants and one lion.

"C. R. BROTHWELL."

"'I'm very sorry, my dear,' said he calmly, 'but apparent evils are often blessings in disguise. It is all right.' With that he rolled back into his original comfortable position and, I give you my word for it, in three minutes was fast asleep."

The loss by this fire was £50,000; insurance, only £6,000. Barnum writes :—

"Many people thought I would be deterred by this disaster from ever collecting another menagerie. Some even surmised that I would give up the show business altogether. But I am not in the show business alone to make money. I feel it my mission, as long as I live, to provide clean, moral and healthful recreation for the public to which I have so long catered, and which has never failed to recognize most generously my efforts. Mr. Bailey was as little dismayed as myself. From all parts of the world, dealers in wild animals and our own hunters telegraphed, cabled and wrote what they had to offer us. Eleven days after the fire I found Mr. Bailey intently reading a pile of telegrams and letters, and making memoranda. To my inquiry as to what he was doing, he coolly remarked, 'I am ordering a menagerie.' 'What! all in one day?' I ejaculated, somewhat surprised. 'Certainly,' he replied, 'I know from these telegrams just where we can get every animal we want, and in six hours we shall own a much finer menagerie than the one we have lost.'

Apropōs of this fire, it is a strange coincidence that four of the most famous elephants the world ever saw, all of which have been owned by Barnum, and contributed very largely to the reputation and prosperity of his show, have come to untimely ends. The baby elephant, a most popular and amiable little creature, died in 1886, in the very spot where he was born. His age was four years only. Jumbo was killed by a locomotive, and Alice and the white elephant perished tragically in the burning of the Winter Quarters.

Mr. Barnum is fond of his joke, and is apparently just as well satisfied when the tables are turned upon himself, which we must confess, does not appear to be very often. The following is a characteristic little anecdote :—

Barnum, in his younger days, boarded with a certain Mrs. Jerusha Wheeler and her daughter Jerusha who were familiarly known, the one as "Aunt Rushia" and the other as "Rushia." Barnum, at that time was running a 'store,' and dealt to a considerable extent in furs. Many of the store customers were hatters, and among the many kinds of fur sold for the nap of hats was one

known to the trade as "Russia." "One day," says Barnum, "a hatter, Walter Dibble, called to buy some furs. I sold him several kinds, including "beaver" and "cony," and he then asked for some "Russia." We had none, and, as I wanted to play a joke upon him, I told him that Mrs. Wheeler had several hundred pounds of "Rushia."

"What on earth is a woman doing with 'Russia?'" said he. Barnum could not answer, but assured the hatter that there were one hundred and thirty pounds of old Rushia and one hundred and fifty pounds of young Rushia in Mrs. Wheeler's house, and under her charge, but whether or not it was for sale he could not say. Off he started to make the purchase and knocked at the door. Mrs. Wheeler, the elder, made her appearance.

"I want to get your Russia," said the hatter.

Mrs. Wheeler asked him to walk in and be seated. She, of course, supposed that he had come for her daughter "Rushia."

"What do you want of Rushia?" asked the old lady.

"To make hats," was the reply.

"To trim hats, I suppose you mean?" responded Mrs. Wheeler.

"No, for the outside of hats," replied the hatter.

"Well, I don't know much about hats," said the old lady, "but I will call my daughter."

Passing into another room where "Rushia" the younger was at work, she informed her that a man wanted her to make hats.

"Oh, he means sister Mary, probably. I suppose he wants some ladies' hats," replied Rushia, as she went into the parlour.

"This is my daughter," said the old lady.

"I want to get your Russia," said he, addressing the young lady.

"I suppose you wish to see my sister Mary; she is our milliner," said the young Rushia.

"I wish to see whoever owns the property," said the hatter.

Sister Mary was sent for, and, as she was introduced, the hatter informed her that he wished to buy her "Russia."

"Buy Rushia?" exclaimed Mary, in surprise; "I don't understand you."

"Your name is Miss Wheeler, I believe," said the hatter, who was annoyed by the difficulty he met with in being understood.

"It is, sir."

"Ah! very well. Is there old and young Russia in the house?"

"I believe there is," said Mary, surprised at the familiar manner in which he spoke of her mother and sister, who were present.

"What is the price of old Russia per pound?" asked the hatter.

"I believe, sir, that old Rushia is not for sale," replied Mary, indignantly.

"Well, what do you ask for young Russia?" pursued the hatter.

"Sir," said Miss Rushia the younger, springing to her feet, "do you come here to insult defenceless females? If you do, sir, our brother, who is in the garden, will punish you as you deserve."

"Ladies!" exclaimed the hatter, in astonishment, "what on earth have I done to offend you? I came here on a business matter. I want to buy some Russia. I was told you had old and young Russia in the house. Indeed, this young lady just stated such to be the fact, but she says the old Russia is not for sale. Now, if I can buy the

young Russia I want to do so ; but if that can't be done, please to say so, and I will trouble you no further."

"Mother, open the door and let this man go out; he is undoubtedly crazy," said Miss Mary.

"By thunder ! I believe I shall be if I remain here long," exclaimed the hatter, considerably excited. "I wonder if folks never do business in these parts, that you think a man is crazy if he attempts such a thing?"

"Business ! poor man !" said Mary soothingly, approaching the door.

"I am not a poor man, madam," replied the hatter. "My name is Walter Dibble ; I carry on hatting extensively in Danbury ; I came to Grassy Plain to buy fur, and have purchased some "beaver" and "cony," and now it seems I am to be called 'crazy' and a 'poor man' because I want to buy a little 'Russia' to make up my assortment."

The ladies began to open their eyes ; they saw that Mr. Dibble was quite in earnest, and his explanation threw considerable light upon the subject.

"Who sent you here?" asked sister Mary.

"The clerk at the opposite store," was the reply.

"He is a wicked young fellow for making all this trouble," said the old lady ; "he has been doing this for a joke."

"A joke !" exclaimed Dibble, in surprise. "Have you no Russia then?"

"My name is Jerusha, and so is my daughter's," said Mrs. Wheeler, "and that, I suppose, is what he meant by telling you about old and young Russia."

Mr. Dibble bolted through the door without another word, and what subsequently transpired Barnum does not relate.

Barnum is a firm believer in advertising, and he has reduced the art of advertising to a science. His maxim is that if a man has a genuine article, there is no way in which he can 'reap' more advantageously than by 'sowing' to the public through the medium of advertisements. A friend once said to him "I have tried advertising and did not succeed, yet I have a good article." He replied, "My friend, there may be exceptions to a general rule. But how do you advertise?"

"I put it in a weekly newspaper three times, and paid a dollar and a half for it."

Barnum's reply was, "Sir, advertising is like learning,—'a little is a dangerous thing.'"

So a man who advertises at all must keep it up until the public know what and who he is, and what his business is, or else the money invested in advertising is lost. Some men have a peculiar genius for writing a striking advertisement, one that will arrest the attention of the readers at first sight. This tact of course, gives the advertiser a great advantage. Sometimes a man makes himself popular by a unique sign, or a curious display in his window. But a man to advertise thoroughly must strike out a new line for himself as did Genin, the New York hatter, some years ago. When Jenny Lind was making her first tour, through America the price of the tickets was run up to an enormous price, and Genin bought the first Jenny Lind ticket at auction for two hundred and twenty dollars,

because he knew it would be a good advertisement for him. "Who is the bidder?" said the auctioneer, as he knocked down the ticket. "Genin, the hatter," was the response. Thousands of people in the highest stations in life were present at the time. "Who is 'Genin,' the hatter?" they exclaimed. They had never heard of him before. The next morning the papers and telegraph had circulated the facts from Maine to Texas, and from five to ten millions of people had read that the tickets sold at auction for Jenny Lind's first concert amounted to about twenty-thousand dollars, and that a single ticket was sold to "Genin, the hatter," for two hundred and twenty dollars. Men throughout the country involuntarily took off their hats to see if they had a "Genin" hat on their heads. At a town in Iowa it was found that in the crowd around the post office there was one man who had on a "Genin" hat, and he showed it in triumph, although it was worn out, and not worth a couple of pice. One man in the crowd, who seemed to envy the possessor of this hat said, "Come, give us all a chance; put it up to auction!" He did so, and it was sold as a keepsake for nine dollars and fifty cents. What was the consequence to Mr. Genin of this advertisement? He sold ten thousand extra hats within the first two years. Nine tenths of the purchasers bought of him, probably, out of curiosity, and many of them, finding that he gave them an equivalent for their money, became his regular customers. The novel advertisement first struck their attention and then, as they got a good article, they came again.

Barnum claims that he thoroughly understands the art of advertising, not merely by printer's ink (which, however, he uses freely) but by turning every possible circumstance to account. It occurred to him, on one occasion that if he could put an elephant to ploughing for a while, on his farm, it would be a capital advertisement for the American Museum. So he sent an elephant to his farm at Bridgeport in charge of his keeper, whom he dressed in oriental costume, and the pair were stationed in a six-acre lot which lay close beside the track of the New York and New Haven railroad.

The keeper was furnished with a time-table of the road, with special instructions to be busily engaged in his work whenever passenger trains from either end were passing through. Of course, the matter soon appeared in the papers and went the entire rounds of the press in America, and even in Europe. Hundreds of people came many miles to witness the novel spectacle. Letters poured in from the secretaries of hundreds of state and county agricultural societies throughout the Union, stating that the presidents and directors of such societies had requested them to propound a series of questions in regard to the new power in operation on the farm. These questions were greatly diversified, but the general run of them was something like the following:—

1. "Is the elephant a profitable agricultural animal?"
2. "How much can an elephant plough in a day?"
3. "How much can he draw?"
4. "How much does he eat?"—This question was invariably asked, and was a very important one.
5. "Will elephants make themselves generally useful on a farm?"
6. "What is the price of an elephant?"
7. "Where can elephants be purchased?"

Then would follow a score of other inquiries, such as, whether elephants were easily managed; if they would quarrel with cattle; if it was possible to breed them; how old elephants must be before they would earn their own living; and so on indefinitely. Barnum says: "I began to be alarmed lest some one should buy an elephant, and so share the fate of the man who drew one in a lottery, and did not know what to do with him. I accordingly had a general letter printed, which I mailed to all my anxious inquirers. It was headed 'strictly confidential,' and I then stated, begging by correspondents 'not to mention it,' that to me the elephant was a valuable agricultural animal, because he was an excellent advertisement to my Museum; but that to other farmers he would prove very unprofitable, for many reasons. In the first place, such an animal would cost from \$3,000 to \$10,000; in cold weather he would not work at all; in any weather he could not earn even half his living; he would eat up the value of his own head, tail, trunk, and body every year; and I begged my correspondents not to do so foolish a thing as to undertake elephant farming."

Newspaper reporters came from far and near, and wrote glowing accounts of the elephantine performances. Pictures of "Barnum's ploughing elephant" appeared in illustrated papers at home and abroad. The six acres were ploughed over at least sixty times before the advertisement was considered sufficiently circulated, and the elephant then was sold to Van Amburgh's Menagerie.

Many of our readers will altogether fail to follow Barnum when he tells them to "consider that financial as well as all other misfortunes which come upon those who always strive to do right, are simply blessings in disguise." We must, however, do Barnum the justice to say that he himself appears to have acted up to his philosophy, and has always risen pluckily to meet financial misfortune; but then he generally had enough saved from the wreck to keep the pot boiling. On one occasion, in fact, after a most disastrous fire, by which his whole museum was destroyed, it appeared that, to Barnum, a destructive fire was almost as much of a godsend, as a 'failure' to a dishonest merchant. He immediately purchased a mansion in New York, and retired entirely from business. But, to a vigorous nature such as Barnum's, a life of inactivity was impossible. His native energy would not allow him to remain long idle. He says: "As I saw from my windows, merchants and bankers riding in their carriages down to their places of business, I said to myself, 'You are all excitement, trouble and disappointment, but I am free and happy; I have retired.' But I was much mistaken; I was only resting. My brain was clear and my energies as strong as they ever had been." Needless to say, Barnum was not long before he got tired of idleness.

Taken altogether, *Dollars and Sense* is a good, healthy book to read, and there are many profitable lessons to be gleaned from its pages. The chief point on which it insists is that work in some form is the law of all earthly existence. Every living thing must work or die, but it requires an accurate knowledge of ourselves and a fair understanding of the circumstances by which we are surrounded, to find our proper place in the crush. Oftentimes we find our own unaided wisdom at fault, and are forced to look for guidance to those who have successfully solved the problem for themselves.

Those who have successfully travelled the road themselves are the best guides; for though the aims, the occupations and the circumstances of man be diverse, there will generally be found to be some ruling principles which should be observed by all, some mistakes which all are liable to make, and which the voice of experience may help us to avoid. It is partly with a view of helping those who feel that they require such advice, that this book has been written.

In perfect touch with its cheerful and encouraging chapters, lies the money problem, its relation to human needs, to commerce, to art, and to civilization. From whence comes the money, and whither it goes, is an interesting topic of thought and speculation. In it is involved the science of banking and the principles of a nation's financial policy. More especially does this money question beat in harmony with the secret of success in life when shorn of its technical mysteries and lifted into the broad sunlight of the mind untrained in economic theories. In the concluding chapters of the book the reader will find much that is useful and instructive upon this expanding and ever-important subject.

APEX.

THE EDITOR'S EASY CHAIR.

$$\begin{array}{r}
 452952 \overline{) 648} \\
 6415 \quad 699 \\
 5832 \\
 000
 \end{array}$$



AND WHAT DO THESE FIGURES MEAN? Why, you must know that this is the way in which Greek boys and girls do examples in long division. "What a queer way!" you say. "Just look! they put the divisor at the right hand, and they put the quotient underneath the divisor."

And some of you are wondering why you see no sign of any multiplication, and you are asking: "Have the scholars done this all out on their slates and merely put these figures on the black-board, or are they so wonderfully smart that they multiply and carry and subtract in their heads and write merely the remainder on the board?"

We have all wondered in the same way in visiting Greek schools, have pitied the pupils for this seemingly cumbrous method and at the same time admired their ability, as we supposed, to do so much in their heads and have so little appear on the board. But the other day we had it all explained to us by a Greek master who claims that he approves this method, and considers it simpler than any other.

And this is his explanation: "452952 is to be divided by 648. It looks as if it would go 7 times, so I say in my mind 7 times 6 are 42: 42 from 45 gives me 3, I bring down the 2 making 32; 7 times 4 are 28; 28 from 32 leaves 4, but 7 times 8 are more than 49, so I must try another figure. I will try 6; 6 times 6 are 36; 36 from 45 leaves 9. Oh! that is a large enough remainder; I needn't go any further.

"Then there is another way we have," the master went on to say, "to try if our quotient is correct: instead of multiplying 648 by 7, we divide 4529 by 7 and find that the result is less than 648; we try 6 and find that the result is a sum larger than 648, so we conclude 6 is the first figure of our desired quotient.

All this is preliminary, and of course to those who are accustomed to the methods does not take so long as it has taken here to read it. Now we come to the real division and we will let the master continue his explanation.

"Having found the first figure of the quotient to be 6, I work the example in this way: 6 times 8 are 48; it takes 1 to make 49 (for the 9 above I must consider as a 49), so I write down the 1; 6 times 4 are 24 and 4 (for I make the 9 a 49) make 28. It takes 4 more to make the next higher figure containing a 2, *viz.*, 32; so I write down the 4 and carry 3 in my multiplica-

$$\begin{array}{r}
 452952 \overline{) 648} \\
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tion of the figure 6, getting thereby 39. It takes 6 more to make 45 ; I write down 6 ; so I have 641 to which I bring down the next figure 5, giving me 6415.

"I proceed with the second and third figures in the quotient in the same way, and in this example I find that it is necessary to add nothing to my last multiplication to make the product equal to the figures above. This proves that there is no remainder and that 648 is contained in 452952 exactly 699 times."

A WRITER THINKS HE HAS DISCOVERED THAT THE LIONIZING OF Thomas Carlyle was, indirectly, one of the causes of Jane Welch Carlyle's unhappiness. It is pointed out that Lady Ashburton conceived a great admiration for Carlyle, and that led, through various stages, to social invitations for him which did not include her. Now, Mrs. Carlyle was an extraordinary woman. She was unquestionably the intellectual peer of any woman of her time ; but the English nobility who feted Carlyle merely tolerated her, and she felt that her admittance into their society was merely upon sufferance. Mrs. Carlyle was far the superior of Thomas Carlyle in culture and refinement. He was a peasant, with the ideas of a peasant in regard to woman. His mother, whom he esteemed, was an ignorant woman who had washed the clothes of her family, and brewed and baked for them. Mrs. Carlyle came from the professional classes of England. Her father had been possessed of a good income, and she was brought up with plenty of servants about her. She was delicate in frame and remarkably sensitive in feeling. After she was married she discovered that Carlyle expected her to do the same things that his mother had done and she murmured not, but attempted to do them. In the days of their poverty, she did all the work about the house, and Carlyle unconsciously imposed upon her. He was very irritable and his stomach was such that he was often in a very bad humour. He would eat no bread but that which his wife baked, and he said no marmalade agreed with him except that which she made with her own hands. He often wounded her feelings without knowing it, and he was filled with remorse when his eyes were opened by her diary, which he first saw after her death. He authorized the publication of the diary, more from a wish to do justice to her memory than from anything else, and he gave it over into Froude's hands with the injunction to publish it if he thought that justice demanded it, but if he published it to print it word for word and line for line as it was written.

THE ACTUAL MONEY OF ALL KINDS, METALLIC AND PAPER, IN circulation in the United States at this time is near a billion and three-quarters of dollars. Of this, the United States Treasury generally holds about 250,000,000 as reserve and for other purposes, while the banks and other financial institutions, scattered throughout the country, are obliged to hold permanently probably double that amount. The actual money in circulation in the hands of the people would therefore seem to be close to a round billion. But even allowing for the freest circulation of this stock of currency among 50,000,000 of people, the amount seems very small in comparison with the aggregate value of the business transactions of the country. The real fact of the matter is that the bulk of the business is carried on through the highly

artificial medium afforded by the use of banks and the facilities which they afford in the way of drafts and checks. It is unusual to pay amounts of over a few dollars in actual money. All the great transactions of commerce and speculation are effected through banks. They furnish the means by which the use of money is economized, and the limited amount of available circulating medium is made to perform many times the work it could do by itself. Moreover, there is a means by which the extent of this work can be guessed. In all of the large cities of the country, the Banks have formed associations known as Clearing Houses. A great deal of their business naturally consists of the receipt on deposit of checks drawn on other banks. Now, to collect such checks in each instance, would involve endless work, and necessitate the transfer of vast amounts of money every day. The Clearing House is an agency through which all the banks of a given city are able to compare the amounts of each others' checks in their hands, and to effect a settlement of the balances only. Statistics are therefore available from all the Clearing Houses to show the amount of such exchanges. The figures from forty cities show that in 1889 the total exchanges of checks amounted to over 50,000,000,000 of dollars, while the balances paid in connection with them foot up over 6,000,000,000. This of itself, shows a mass of business transactions fifty times larger than the available supply of currency. Indeed, it does not include the checks drawn directly on banks, nor a vast volume of business through drafts and other commercial methods, that supplement the economy in use of money, displayed by the Clearing House returns. It would not seem to be over-estimating the matter, to put the total volume of the country's business somewhere close to 100,000,000,000 in amount, and it can be readily seen how little of this is done through the actual handling of money itself.

IN DETERMINING WHAT BOOKS HE SHOULD READ, A YOUNG MAN will consider, first, their relation to the particular vocation in which he is engaged, or wishes to engage; and, secondly, their bearing on the general enrichment and training of his mind. There is no species of employment, no trade, no business, no profession, which has not its special literature devoted to an explanation of its principles, processes and aims. It is by mastering this special and technical literature, by learning the shortcomings of a given handicraft or art, and reflecting on the historical endeavours to correct them, that the great inventions have been made; those, for example, of the cotton-gin, of the spinning and weaving mechanisms, of the steam-engine, the locomotive, the steam-boat, the propellor, the electric telegraph, the electric light, the electric motor and the sewing-machine. The authors of those epoch-making discoveries were not content with being accomplished workmen in the crafts or arts already practiced—experts in processes already known. They did not rest until they brought to a focus all the illumination which history and science could cast upon their calling, and thus from the failures of the past evoked a triumphant innovation. There is no branch of mechanics in which an ambitious workman cannot, in his leisure hours, obtain a great deal of useful information and suggestion. He will find helpful and trustworthy articles, dealing with the purposes and methods of his particular calling, in all the principal encyclopædias, and there are special dictionaries, like those of Ure and Brand, devoted

to the practical applications of science and art. A comprehensive notion of what has been achieved and what is hoped for in his vocation can be obtained from such books, and they will refer him to technical treatises in which the subject is discussed in more detail. Besides, however, acquiring the specific information calculated to assist him in his trade or business, a young man, who enters on the work of self-education, will recognize the necessity of so storing and training his intellect that he will understand the world he lives in, and fit himself to discharge his duties to his family and to society. To this end he needs to familiarize himself with the two kinds of literature discriminated by De Quincey as the literature of knowledge and the literature of power. To the former belong all those books to which we resort for facts. Among these, first of all, one should study treatises on anatomy and physiology, since it is of primary importance that a man should know how his body is constructed and how it works. Then he should acquire at least the rudiments of astronomy and geology, that he may know something about the solar system to which this planet belongs and about the successive stages through which the earth's crust has passed. Then he should master, at all events, the elements of biology, botany and natural history, that he may comprehend the difference between inorganic and organic matter and gain some notion of the infinite variety and complexity of the forms of vegetable and animal life. Next, the struggles of man to improve his situation through organized societies are to be followed in history and political economy. Care, however, should of course be taken to select such histories as deal with the condition and progress of the masses of a people, rather than with changes of dynasty and the vicissitudes of diplomacy and war. So, too, in choosing text-books of political economy, those will be found most useful which do not proceed on the assumption that men are machines, but acknowledge that sympathy as well as self-interest has a part to play in human life.

WHY DO PEOPLE CARE SO MUCH ABOUT WHAT IS SAID IN newspapers? They do care, especially when the something said is said of themselves. A friend remarked the other day, on what seemed to him the absurd fact, that when a young man of questionable wisdom made a remark you gave it such attention as his abilities and the accuracy of his information seemed to warrant; but when the same young man got his remark committed to type, and put into a newspaper, it became clothed with an authority which you felt bound to respect, and did respect more or less, however you might have differed from the opinion. But the fact was not so absurd as was thought. When Brown remarks to Jones, "Robinson is an ass," that is one thing. Brown may not really mean what he says. His remark is intended for Jones, and very possibly he counts upon certain qualities in Jones to qualify its force. Beauty lies in the eye of the beholder, and of course very much of the force of talk lies in the listener's ear. Then, too, when Brown makes his remark it may be with recognition of the chance that he may feel differently about Robinson the next morning, and may recall his opinion the next time he and Jones meet. But when Brown, the editor, composing the opinion of his newspaper, has his disparaging opinion of Robinson put into type and published, that is a different

matter. In the first place, when his opinion once gets into print it becomes something *more* than Brown's opinion. It is the opinion of a responsible business establishment, which very possibly represents an investment of thousands of rupees, the profits of which depend in a considerable measure upon its reputation, which in turn depends, to some extent, on the ability of its editor to say the right thing at the right time, and defend it. And to anything which a responsible newspaper prints attach many of the qualities which thus characterize its personal remarks. For whatever it says it must be ready either to fight, or to apologize and pay. Inevitably it will have to apologize sometimes; but the apologies of reputable newspapers are far between, and are apt, when they come, to relate to matters of minor importance. The obligation to be right, or at least defensible, in the first place, is seriously taken, and an apology is a confession. In the second place, when an opinion about Robinson gets into a newspaper it is on the way to become the opinion of that newspaper's readers, and from that it is only a step to becoming the opinion of the public. If the remark is so manifestly true, or supported by such evidence that the average intelligence accepts it, it comes with the force of revelation, as did the remark of the little boy in the fairy tale that the king hadn't his clothes on. From private opinion to public opinion is as great a step as from a liquid to a crystal; but when matters have come to the right point a little jar will often precipitate the change in an instant. Robinson may bear with equanimity the knowledge that Brown in talking with Jones has called him an ass, but the suspicion that Jones's opinion is public opinion may reasonably disconcert him.

THE CO-OPERATION AND UNION OF WOMEN WHO WISH TO advance the educational, or protect the industrial interests of their sex is a movement that has attained vast importance, and is likely to exert a great influence for good on the future working women of every class. It is only in comparatively recent years that women have been freely admitted to the professional and business walks of life; and, even with the enlarged opportunities given them, they early experienced the need of combining their forces, in order that certain obstacles in the path of their advancement might be removed. From small beginnings the movement spread, until we now have in all the great English and American cities and many of the smaller ones, women's "Educational and Industrial Unions." These societies, under the above and similar names, primarily organised as a means of assisting and educating working women, accomplish far more than this in bringing together all classes of women and uniting them in the bonds of common interests: the union of all for the good of all. The practical workings of these unions come under several heads; though the departments are usually under one roof. There is, ordinarily, a comfortable reading-room and a good library, where any woman may sit at her ease and enjoy a good book; no little boon to many who are restricted to a small unheated bedroom. Here they are furnished with a warm parlour as well as recreation, free of cost. Nor are the words of good cheer and encouragement of less value to the friendless women who form a great part of the working forces of a large city. An employment-department finds work for bookkeepers, stenographers, dressmakers, etc., and a sort

of superior registry office does the same for those seeking domestic service. There is a protective department, which recovers, without charge, the wages of poor women when, as too frequently happens, they are unlawfully withheld. The society usually has its own lawyer for the prosecution of this and other business. There is a "befriending committee" who visit the sick, and helpless, and friendless. And strangers in a city may always obtain the assistance of these ladies. There are classes, free or at a nominal cost, where women or girls may be instructed in dressmaking, millinery, penmanship, physical culture, French, German, elocution, and drawing. Last, but not least, there is usually connected with each union, a bureau where are sold articles of home manufacture, such as pickles, preserves, jellies, bread, cake, and pastry; as well as crochet, knitting, underwear, and many plain and fancy articles made by women at their own homes, to whom the means of disposing easily of the work of their hands is a great benefit. A small percentage is, of course, charged for the service rendered, but the price obtained is so much above that which could be got from the storekeepers that the slight tax is not felt. The vast importance of societies doing such work as the above described, will not be under-estimated if we remember the thousands of women wage-earners there are in each of the great cities—many of them girls from distant country homes, who, without such institutions, would be friendless and helpless in a strange city; for such as these, the benefits are incalculable. It is to be hoped that such institutions will soon become so general that a woman finding herself a stranger in a strange place, and needing local information, advice, companionship, or protection, will have only to ask, Where is the "Women's Educational and Industrial Union?"



TOPICS OF THE MONTH.

LATEST TELEGRAPHIC INFORMATION RECEIVED up to the time of going to press regarding the Irish embrangement is to the effect that Messrs. M'Carthy and Sexton, after a conference with Mr. O'Brien, are "satisfied" and "hope for a speedy settlement." There is nothing to indicate upon what lines the settlement is to be arrived at, although we notice from the papers received last mail that various suggestions were being put forward with a view to this end, none of them being considered likely to afford a final solution. The position of Mr. Parnell is a pitiable one, and advocates of the theory that the Seventh Commandment is intended, like many contemporary institutions, for the exclusive use of women, must have had a rude shock in noting his recent experiences. That a man may be negligent in his observance of that injunction, and still be useful in a very high degree, in very high station, to his fellows, is as easy of historical demonstration as the supplementary proposition that the nicest regard for it is not inconsistent with mischievous and disastrous political activity. If, even for the last century, the public services of all Englishmen (to say nothing of other nations) had ceased at a time when they were detected in the infringement of the domestic arrangements of other men, a good many distinguished exploits which have been regarded as highly advantageous to the human race, would not have been achieved. Man is a curious agglomeration of soul and body. In spite of the centuries of judicious training the spiritual side of him has had, his earthly predilections continue fractious and persistent. Society is a queer creature. It will wink at almost any sin as long as the sinner makes a reasonable pretence of concealing it, but it sometimes feels compelled to act when misconduct becomes matter of record. And knowing this, the man who denied Home Rule to Captain O'Shea should not, perhaps, have expected to be heard patiently as a representative statesman demanding it for Ireland. As punishment had to be meted out, we must confess to a feeling of satisfaction that all of it has not fallen on the woman, as is too often the case; at the same time it is pitiful to see one who, but yesterday, was great and honoured, to-day a scoff and a mockery in the mouths of men. Even the *Times*, who flaked so much in its attempt to overthrow Parnell, and expose his real character to the English public, must feel that it has been sufficiently vindicated, for the history of our own times furnishes no parallel in which a man of public eminence has fallen so suddenly, and so far, as has Parnell. Had he died before the O'Shea case was begun, he would have been a fortunate man, for his name would have gone into history in company with the greatest patriots of his race. For every one character such as Parnell, that appears in the theatre of human affairs, that can rule events, there are ten thousand that can follow them, sometimes with more success than these master minds; always with more safety. In no instance has the truth of the old saying been more fully proved that he who undertakes to

guide the vessel, may at last be swept away from the helm by the hurricane; while those who have battered themselves down, determined to follow the fate of the vessel, rather than to guide it, may arrive safe on the shore.

THE SPECTACLE PRESENTED BY THE STRIFE BETWEEN THE Parnellites and the Anti-Parnellites has shaken the faith of many Gladstonians in Home Rule, and, according to the mail papers, few of them continued seriously to believe that, after the exposure of the real character and objects of the Irish Home Rulers, Mr. McCarthy could be treated with exactly on the same terms as Mr. Parnell. Mr. Chamberlain has been prompt to take advantage of the split in the Gladstonian Camp to propose a closer co-operation between Conservative and Liberal opponents of Separatism, but Mr. Chamberlain does not appear to have been taken seriously. Parliament re-assembled on the 22nd instant, when Mr. Parnell was to the fore, and gave notice of a resolution condemning the administration of the Crimes Act in Ireland. This, as an appeal to the gallery, will not be without effect; it does not, however, appear to point to any change of attitude on the part of Parnell. On Monday last Sir John Gorst introduced his India Councils Bill, which was read for the first time. The Bill is identical with that introduced by Lord Cross in the House of Lords. Amongst other business, Parliament will be asked to deal with the railway strikes which are at present crippling communication and causing great inconvenience to the public. Sir Michael Hicks-Beach on the re-assembling of Parliament declared, in reply to a question, that the Government was not entitled to interfere with the Railway Companies regarding the strikes, and a motion, brought forward by Mr. Channing, for a reduction in the working hours of railway servants, was negatived by a majority of seventeen votes. It is, however, stated that Sir Michael Hicks-Beach will, at an early date, move for a Select Committee to enquire into the feasibility of passing a law to fix shorter hours for railway employes. A resolution expunging from the Journals of the House, the resolution passed in 1880, precluding Mr. Bradlaugh from taking the oath, has been passed unanimously.

THE REVENUE RETURNS FOR THE UNITED KINGDOM FOR THE first three quarters of the current financial year, seem to hold out a promise of another prosperity Budget, and in the absence of unexpected difficulties it is considered that a surplus of £2,000,000 will remain to be dealt with as the basis of next year's finance. Under the three great heads of account, Customs, Excise and Stamps, the receipts for the first three quarters indicate an elasticity that was hardly to be looked for, although for the third quarter there has been a falling off. Mr. Goschen had allowed for a falling off in the Customs revenue of over £1,300,000, but the actual decrease under this head for the nine months is but £608,000, chiefly owing to the lowering of the duty on tea, currants, &c. The receipts under Excise are most satisfactory, for while provision was made for an estimated decrease of £430,000 on the year, the net increase on the first three quarters has been £1,175,000. Under Stamps, too, there will probably be an increase, for the receipts for the first three quarters are equal to those estimated for the whole year. Under these three heads of account in the aggregate, instead of a decrease of over a million and a quarter for the year as was estimated

the actual figures for the nine months ending first January show an increase of considerably more than a million over those of the corresponding period of last year. The net increase of the revenue into the Exchequer is £1,223,000, and the net increase of the total produce of taxation, including the payments to the local taxation account, is £1,984,000.

WE HAVE HEARD NOTHING, OF LATE, REGARDING THE PROGRESS that is being made in the Behring Sea difficulty. According to the last telegraphic advices very little advance had been made toward the settlement of the existing differences between England and America regarding the seal fisheries, but if we are to believe the American papers, the question is one that will shortly solve itself, unless stringent measures are adopted for the preservation of the seals in those waters. It is claimed that the United States State and Treasury Departments have information as to the destruction of seal life which is very significant, and a report recently issued contains the startling information that the entire number of killable seals on the Aleutian Islands, which comprise the only sealing grounds belonging to the United States, is now less than 100,000. The report is substantiated by surveys which show that since 1872 the number of bachelor seals has been reduced from 1,500,000 to the number mentioned, and it is doubtful if enough now remain for this year's authorized catch. The seal catch under the contract with the American Government was only 21,000 last year, while the contractors were authorized to take 60,000. The poachery by sea and land seriously threatens the entire seal life in the vicinity of Prebylov Island, and there are reliable statistics to show that the catch of the poachers is within 3,120 of that authorized by the United States. Professor Elliot, who furnishes the report in question, recommends that no catch be made for the next seven years, since, unless this prohibition is made, there will be an absolute extermination of seal life in the Alaskan regions. Apart from this, however, there should be no real difficulties in the way of a settlement. The English papers, and many of the American papers as well, while regretting the late display of 'bluster,' in the course of which Lord Salisbury and Mr. Blaine exchanged compliments, agree that it is preposterous to suppose that either country would go to war over so trivial a matter. There appears to be a consensus of opinion that the misunderstanding is being unnecessarily prolonged to meet the exigencies of a certain school of American politicians, whom it suits to have a 'cry' by which they can, at any moment, please the more ignorant and prejudiced class of Irish voters. It is this consideration that has hampered the negotiations, for, owing to the severe shaking up that the Republican party got at the recent elections over the Tariff Bill, Mr. Blaine, to secure a good election cry for his party, is interested in keeping the difficulty pending, knowing as he does that he can thus 'diddle' the Irish vote—which is no mean factor in American politics.

THE PASSAGE OF THE AMERICAN INTERNATIONAL COPYRIGHT Bill is the final success of an intermittent effort of more than fifty years, during which the most eminent American statesmen have advocated the measure, and projects of law and treaties have been carefully discussed. The opposing forces have been of various kinds. Chiefly they have been the general conviction that literary property is different in kind from other property, and that the law has acknowledged the difference; that the measure would heighten the prices of

books ; and that it was not for the benefit of American printers and publishers. That American authors will be benefitted by its passage there is no doubt ; it will raise the price of books, however, and the cheap reprints, which have done so much to educate the people in the past will be impossible under the new law. The Bill practically puts a high duty on brain products, both in England and America. The producers will derive the benefit and the public will pay the tax. The reciprocity of action upon the part of other governments, which the Act contemplates, will follow, and then the results of the measure will appear. Its effect will be, in brief, to extend the author's copyright to all countries in which his work is sold, without injury to the interest of the local manufacturer and publisher. It removes from a great industry the imputation of unfairness, and throws off the burden which has hitherto oppressed literary effort in America. The bill is emphatically a measure of fair play, which will inevitably promote a friendly feeling between all the countries which it affects. At the same time it effectually disposes of the familiar assertion that there can be no property in ideas, by the statement that no such property is claimed, but that it is incontestable that property exists in a form of expression which is exclusively individual.

IN VIEW OF THE EXTREME MEASURES THAT ARE BEING RESORTED TO IN RUSSIA SINCE THE ASSASSINATION OF GENERAL SILVERSTOFF, FOR WHICH ALL BLAME IS ATTRIBUTED TO THE CZAR, IT MIGHT BE AS WELL TO PAUSE AND CONSIDER WHETHER HE IS SO GREAT A DESPÔT AS IS REPRESENTED. According to the telegrams to the English papers, "indiscriminate arrests are being effected in every town in the Empire, as the police are apprehensive of fresh Nihilist outbreaks. Persons of all ranks, we are told, are being summoned to the police offices, and many have been imprisoned because they corresponded with people in France, or are known to read French books, or are related to exiles in Siberia. The police seem to be multiplying arrests simply to levy blackmail on timid people. In St. Petersburg a new paroxysm of police activity has excited so many rumours of plots that the court is said to have become unnerved. The Czar goes to St. Petersburg as seldom as possible, and when he does go he remains but a short time, and always drives to Gatchina before nightfall." Theoretically, the Czar is an absolute monarch, and undoubtedly he has the power, in isolated instances, to issue any decree he may see fit as to the person or the property of a subject, and see that decree enforced. But it is the very magnitude of his power and the stupendousness of his responsibility that render him less than absolute. It is as impossible for the absolute monarch to have good and honest advisers as it is for him to see that every detail of the government of millions of people is properly provided for. So he has the choice between a *laissez faire* policy, which would lead to chaos, and the employment of a bureaucratic system, that inevitably leads to cruelty and corruption. Remove power from a people and you remove all sense of responsibility. Make an official the servant of a monarch who may degrade or imprison him at a whim, and there is every incentive to dishonesty and none to patriotism. So it is that the people of Russia are to-day the victims of the cruellest and most corrupt system of bureaucracy of modern times. The Czar cannot look after the complaints of individuals, except in the most flagrant and notorious cases ; he cannot watch the officials, who are his own creatures, and he is, but for the ability to send a hapless

culprit to Siberia or to order him to be shot, the most helpless monarch in Europe, for he can make little more than a pretence of governing his people.

WE NOTICE THAT THE OLD RUMOUR OF A POSSIBLE UNION OF Portugal with Spain has recently been again revived, thus bringing the whole Iberian peninsular under one Government. It is a favourite project of the liberal, anti-monarchical people of the two countries, but it will probably never be accomplished without a revolution that will overthrow two thrones. Spain and Portugal are mutually jealous; but their Governments would fight side by side for the preservation of royalty. Democracy does not seem to have yet made headway in either sufficient to combat with them in combination. Neither of the two States is now of much consequence in Europe, but the other monarchies would probably assist both in a contest against the republican principle, the triumph of which would endanger other crowns. Spain appears to be tranquil under the prudent government of the Queen Regent, and the new King of Portugal is recovering the popularity he lost during the excitement that followed the dethronement of Dom Pedro in Brazil, and the difficulty with our own country about Southern Africa. Each monarch is more secure upon his throne than he was a year ago, and each one is fully able to put down a rising, whether for a pacific or a bellicose union of the two Kingdoms. A republican insurrection in Austria, Germany or Italy might perhaps be followed by one on the Peninsula, but of this there is not the slightest danger at present.

TWO NOTEWORTHY EVENTS HAVE TAKEN PLACE IN OUR LITTLE social world during the month, *i.e.*, the visit of H. I. H. the Czarewitch, and the much-talked-of and long-anticipated advent of Mrs. Brown-Potter and Mr. Kyrle Bellew. An attempt has been made in various quarters to give political significance to the visit of the "heir to the throne of all the Russias," but it has become so much the custom for young men, destined to fill important positions in life, to travel, with the object of enlarging their ideas, that we see very little political significance in the interchange of courtesies between the representatives of two friendly nations. Should Russia entertain the idea of invading India in the near future—which we very much doubt—the bear-leading process to which the young heir to the throne has been subjected during his brief tour will not have much influence in averting hostilities, and should H. E. the Viceroy, for once breaking loose from the bonds imposed upon him by the India Office, resolve upon an invasion of St. Petersburg without the knowledge of the Secretary of State for India, the fact that he has shaken hands with the Czarewitch would not be much calculated to restrain his impetuosity. The objects of the visit of His Imperial Highness have caused almost as much speculation as has his personal appearance, and, judging from the accounts given of the latter, he must have presented the appearance of a many-sided man to those of his admirers who managed to get close enough to view him.* We quote two of the accounts, as published in the daily papers:—

According to the *Englishman*, 27th January.

The Czarewitch is every inch a Romanoff, in his strong, round, well-set head

According to the *Statesman*, 27th January.

His Imperial Highness appeared to advantage in the uniform of the Russian

and sturdy compact figure, the national type being perfectly exemplified.

Guard, and his manly manners, though tinged with a certain reserve, were much commented on, especially as report had it that he appeared suspicious and nervous in large gatherings. He has somewhat the appearance of a sailor, and his massive head, dark eyes, and squat stature are not what are usually associated with the Russian type, which is generally tall and a blonde.

Such are the pen pictures dished up for the edification of Calcutta readers; and if there exists amongst us an artist capable of designing a Romanoff who, without possessing any national characteristics, is a perfect exemplification of the national type who looks like a sailor, with a squat figure, a round, strong, massive, well-set head, and no body to speak of, now is the time for him to come forward, as we learn that photographs of the Imperial owner of these personal traits are unattainable.

During his brief visit to the capital, our royal visitor was carefully kept in hand by those responsible. He was not taken to that portion of the city where kintals abound, and there shown the wretched state of our poorer Eurasian population. His Imperial nose was carefully guarded from contact with the smells emanating from Harrington's Incinerator. Unfortunately, he arrived too late for the Congress-wallahs to show him, by example, what amount of freedom of expression they would demand ere they gave the order to that Sepoy army, which "holds the keys," to render to him due obeisance, and he was not allowed to attend those Monster Meetings where the Bengali graduate fought, staunchly and verbally, for his unalienable right to debauch little children. One cannot expect any great amount of thought profound from a youth of twenty-three, but we may take it as granted that the Czarewitch would have been far more impressed with what he did not see, than he was with what he was shown.

CALCUTTA SOCIETY, HOWEVER, IS LIKELY TO BE FAR MORE interested in Mrs. Brown Potter, and her wonderful toilets than it has been in the Czarewitch. This lady has been subjected to fierce criticism in the English and American papers; and a woman now-a-days, to attract the attention of two hemispheres, must have either undoubted talent, strong individuality, or remarkable personal attractions. In Mrs. Potter are combined all three, and though critics may differ as to the extent of the first mentioned, there is no divergence as to the two last. America and Australia have promptly reversed the first unfavourable verdict with which the London critics welcomed the young aspirant to fame on her first professional appearance at the Haymarket theatre. A sound slating, however, never yet injured a talented actress any more than what is professionally known as 'butter' helped a 'stick,' however thickly it may have been spread. Mrs. Potter was strong enough, and plucky enough, to doubt the infallibility of the London critics, who, judging her merits from her first appearance in a thankless character, and one ill-suited to her peculiar talents, brought decided animus to their aid in "having a slap" at the new star. The character in which her first appearance was made was that of *Anne Sylvester*, in a dramatized version of Wilkie Collins' "Man and Wife," and although the critics failed to detect talent in the delineation of the character of the wronged governess, the author of the play was not slow to acknowledge that *Anne Sylvester*, as portrayed by Mrs. Potter, was "the woman that he had dreamed

Mrs. Potter was born in the Southern States. Her family is of Spanish origin, and was nearly, if not entirely, ruined by the Civil War. Gifted by nature physically as well as mentally, above the common lot of all but a very few of her sex, the young girl grew up with an intuitive love of the drama, which found expression in the early display of great elocutionary power. So strongly marked indeed was this instinct, that at the early age of eight she had already given evidence of the possession of dramatic talent far above the ordinary, and a few years afterwards found her company eagerly sought after, to amuse and gratify her friends. Married at the early age of 17, when yet but a girl, and translated by that circumstance to New York where she had to make new friends, her innate ability and natural powers again came to her aid, and helped her to make a name for herself as one of the most successful dramatic reciters of the day. These great gifts, aided by her own personal attractions—which appeal most powerfully to those who know her best—soon gave her a prominence and a public fame, which she, as a woman, neither, ardently sought for or very greatly prized. So successful, indeed, was she in this line that from first to last she is said to have secured nearly £10,000 for the charities of New York by her own personal exertions. Such success, however, naturally brought her many offers of employment on the stage, all of which she steadfastly resisted; but finally not having, so far as we can judge, a very happy home, she determined to accept the invitation of a wealthy lady in London—and visit England. As all the world now knows that trip gave her popularity and fame as one of the beauties of the London season, and for a while her name was on the admiring lips of everyone. In the next issue of *Western Wit and Wisdom*, an illustrated paper published from this office, a portrait of Mrs. Potter as *Pauline* in the "Lady of Lyons," will be given, together with a full account of her first appearance at the Theatre Royal, in this city, as *Floria Tosca* in Sardou's great tragedy "La Tosca."

WHILE ON THE SUBJECT OF FORTHCOMING ENTERTAINMENTS we must not forget one which has already afforded us so much amusement, and still continues to do so. Fillis' well appointed Circus shows no falling off in popular favor, and public interest is kept fully alive by frequent changes of programme. The Company will leave for Bombay towards the end of next month, and will doubtless be as fully appreciated by the "Ducks" as it has been by the "Ditchers." What is known as *haute école*, or high-school riding, is not much understood in India. We were present on Wednesday last, when Mr. Fillis put his thoroughbred horse "Victor" through his paces, first shouldering to right and left, *piaffe*, salute on one knee, gallop, changing the feet in gallop, gallop passaging to right and left, locking the feet, and winding up with the Spanish trot and *puffe*—sixteen bars of each. The horse, which has been trained by Mr. Fillis himself, went through the various movements with great accuracy, but to his owner's idea he is not as yet quite perfect and this, his first performance, partook more of the nature of a public rehearsal. This is but one item of a most attractive programme, and we select it for special mention, as it does not appear to be understood how difficult it is to excel in this species of horsemanship.

CALCUTTA, 30th January 1891.

APEX.

THE INDIAN EMPIRE.

VOL. III, No. 5.—MARCH 1891.

THE RECENT STRIKES.



SPECULATION regarding the causes that have led to the labor disputes, of which we have heard so much of late, is rife. A certain school of philanthropists embraces those persons who are seeking to find out how the unemployed of the world may be employed, and why it is that trade is so universally bad and cannot be bettered; whilst the second division are absorbed in calculations regarding the value of silver, which, like the Philosopher's Stone, will, when found, set the world and every one in it in nice, comfortable positions. "Settle the silver question, make the rupee equal to two shillings," and the distracted world will once more become a little Paradise. Unfortunately for every one, the good intentions of both parties are frustrated by a few natural facts that are clearly explained in works on Political Economy, and which the parties concerned either know nothing about, or foolishly ignore. They are well aware that ships cannot be built without timber, timber cannot be obtained without labor, and that labor has to be supported; and yet their argument is that both timber and labor ought to be plentiful in order that ships may be built; but they do not as a rule take into consideration the fact that there must be a demand for ships, a demand for wood, a demand for labor, and, in consequence, a demand for food, the produce of the earth, to support the laborers. In short, they do not recognize the fact that in order to organize mundane affairs, they must start from the simple starting-point, the A. B. C. as it were of economy, and give full weight, immense weight, to the value that is to be attached to "barter," or as it is erroneously styled, "supply and demand." Barter is the root of every transaction between man and man. Time, it is true, has so varnished over this, that we have lost sight of the fact, and have come to regard the possession of coins of the realm as certain passports to the attain-

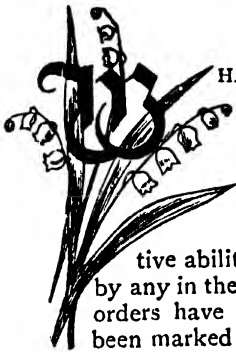
ments of our ends, which are practically creature comforts of various kinds, and, in consequence, the legal tokens of exchange have assumed an aspect that has invested them with a power that is purely fictitious. The metal taken that to-day will exchange hands for an article will, in consequence of "supply and demand," exchange on the following day for more or less of the same commodity, and so its actual value varies daily. The exchange value of the rupee is never the same from day to-day. The ice that cost you six pie yesterday is raised to 12 pie to-day, and the result is that the purchasing power of your *aana* is reduced to the value of six pie, but still people do not see that their rupee is depreciated under such a circumstance, whilst they complain loudly against the so-called depreciation of the rupee. Committees may be formed of the most notable financiers, arguments may be raised everywhere, but till an article is demanded at an exchange suitable to demander and vendor alike, no good will come of the efforts of the Committee. To come to personalities, We will ask what has been the effect in Calcutta of introducing tram-cars? The reply is that *ticca gharry* and *palkee* hire has been reduced in consequence of non-demand, and the native clerks, and others who travel by tram-cars have found that the purchasing value of their rupee has increased. Meanwhile the hackney carriage and *palkee* owners have been forced to lower their prices to meet competition. Therefore the value of the rupee, for the practical purposes for which it is used, remains much the same. When, however, the *ticca gharry-walla* finds that he cannot support life on his earnings, or in other words when, as compared with the exchange value placed upon grain, his rupee depreciates, he gives up an industry that will not support his life, and turns to other fields for employments. In like manner we can understand how increased machinery for production reduces the number of producers in any one industry, whilst it increases the value of skilled mechanics in other industries. For instance, take the case of a farmer who raises many acres of wheat. With a machine he can, with the assistance of four men, do the work of ten or twenty. The six or sixteen are thrown out of employment. As they are only useful as threshers they have to starve, for the machine has done them out of their vocation, and though the machine brings profit to the farmer, it puts out of work men willing to work, but who cannot obtain it. On the other hand, the men who make the machines benefit. They command good wages, and can meet the demands of the suppliers of food; but the question is how to dispose of the unemployed; and we are afraid that it is a question that cannot be answered at once. There exist only two ways of increasing wages and thereby employment. The first is by reducing population; and the second, by inducing a portion of the people to become cultivators or supporters of the lives of those who make their clothes, tools and other articles, which are useful enough in aiding production, but which in themselves are not recognised as articles of a labor-supporting nature. *Ergo*, we must in order to provide work for the unemployed, resolve them into two classes—the producers of food, and the producers of the other necessities of life. And in order to preserve a strict equilibrium between the two classes, we must presume that the first produce just sufficient to feed themselves and the second; and that the second produce just enough to supply the first and themselves with the ordinary requirements

of life. Into these great primary divisions of labor, generation after generation has been cast; but with this alteration in the original arrangement of nature, *viz.*, that the second division have, by inventions, done away to a great extent with the need of the first division, the members of which are forced to die of inanition, or support themselves by becoming members of the second party, and aid that party in still further reducing the necessity for one portion of the world's populace cultivating the soil for the other portion. But we have now reached a period in the world's history when machinery has almost ousted manual labor from both the large divisions; and this, together with an increasing population, is the reason why, with the growth of population, it is found that there is a superfluity of laborers and no demand for them. No human efforts can alter this state of affairs, unless it is found possible to prohibit pauper marriages, or the marriage of minors. It is not uncommon to meet young couples of nineteen or twenty the parents of children whom they can neither afford to feed nor educate, children who are, in the natural course of affairs, bound to grow up worthless members of society, and it is the bounden duty of society to itself suppress such a state of affairs. That it can do it has, we believe, been proved in Switzerland, in which country people do not marry till they are advanced in years, experience, and in the possession of household goods. By legally preventing early marriages, we might, however, drift into greater evils, and still not lessen the population, and so even one of our mainstays is, to a certain extent, cut away, although we cannot but believe that were marriage made illegal for minors or for people who possessed no visible means of supporting a family, the natural sense of virtue and modesty would minimise illegitimacy. Mr. Fawcett, we may observe, took quite our view on this subject, and based his chief objections to the views of the Socialists on the ground that they "evade the difficulties arising from an increase of population." To use the eminent economist's own words, "a social reformer, who keeps out of sight the question of an increase of population, is as dangerous a guide as a navigator, who, steering his ship without chart, is almost sure to find himself wrecked on some sunken rock or hidden reef." But turning aside from this point, we approach our other argument, namely, machinery. Now to say that machinery has not more than supplied the demand for manual labor would be absurd; but, nevertheless, it has brought evil with it, and that evil strikes at the root of the non-employment of men. Where two men with a machine can do more in four hours than a hundred men could in twenty-four, it is evident that twenty men will be thrown out of work. The only sensible conclusion is stop machinery, and let us have manual labor; and such a sensible conclusion in the present day would be regarded as rubbish, pure and simple. Capitalists are, as a rule, business men, and the cheaper they turn out their goods so much the better for them. That is all they care for, or think of. They are willing to give a thousand pounds towards erecting a statue to some deceased hero, but they will not spend a like sum on laborers who will replace their machines. The thousand is paid for the statue, and the men starve, whilst the machine does their work at one-half, or a third the cost! Small blame to the capitalists; for self-interest leads them on. They are not philanthropists, and do not pretend to be such. They

care not if the whole world starves so that they live. And yet they are generous enough in their way, and it would be unfair to say that they do not, from their plenty, strive to help the very work-men they might have employed ; but their feelings of self-interest lead them to prefer machine to human labor. We now stand face to face with facts as regards the unemployed ; and we see *why* they are unemployed.

APEX.

"LIFE."



HAT is life? what is man? These questions are easily put, but cannot as easily be answered. Man seems to head the list of all known existences as classified by Science. The claim of human life to such pre-eminence arises from the fact that it has a peculiar substratum called *Mind*, which, in point of original constructive abilities and conditions of existence, is unsurpassed by any in the whole world of objects. While all the lower orders have remained stationary, the human life alone has been marked by high stages of progress. The bodily organism has not, indeed, varied from its original or parent type; the successive improvements have been purely of a mental character, each generation of mankind possessing a greater knowledge of the surrounding world and leading a more enlightened life than the preceding generation. Life is merely the *movement*, whereas Mind is the *mover* of the human organism. There are achievements of the mind forming, so to speak, a new order of creation, and a worthy addition of the series of natural wonders; consequently the worth of life is the worth of the mind. In the government of life the mind is the sole arbiter, and enjoys boundless freedom of action. Life is aimless and helpless without the presiding and directing influence of the mind. The mind carries on its government of life by means of its unique process called the mental classification, which is analytic and synthetic. All mental acts by which the aim and work of life are contemplated and fulfilled, illustrate the said processes of analysis and synthesis. All knowledge whatsoever is the result of the self-same processes. The greatest and sole occupation of the mind consists in the incessant routine work of analysis and synthesis, by which methods alone knowledge is gained and systems are constructed, with a view to the safe conduct of life through its endless besetting intricacies. All true or positive knowledge is an after-acquisition, and not an original or natural equipment of the human mind. The mind lives in a world of facts related to one another: knowledge, on the other hand, has reference and correspondence to those facts, and on the other, is the evidence of the nature and extent of the mental classification of the same facts. But the mental process does not commence till after the mind has experienced its relation to the surrounding facts. In the absence of such experience, the

mind would be in a state of passivity and devoid of all knowledge. Knowledge, therefore, may be defined as the mind's experience of a fact or facts obtained by the processes of analysis and synthesis.

The doctrine of *a priori* ideas is not only pernicious in its effects, but entirely hypothetical in its nature. It places knowledge hopelessly beyond the pale of evidence, and leads to dogmatism, which is cruel in the extreme. But the so-called intentions of the mind, if carefully examined, would be found to be *real inferences* from premises tacitly understood. For instance, the doctrine that "every effect must have a cause," said to be an intuition, is no intuition at all, but expresses a fact of down-right experience, and embodies a law of uniformity obtaining in a great number of *observed* facts. "Every effect" strictly means every fact *known* by experience to be an effect of some other fact, and the law of causation may be re-stated thus: every fact known by experience to be an effect has some other fact or facts related to it as a cause, and this relation is inviolable, because it has been experienced. On the contrary, if every conceivable object of knowledge were invariably treated as an effect, then every fact known as a cause would itself become an effect of some other cause, the chain of causation would be endless and the mind could find no rest. Hence it follows that a fact should have first been known to be a real effect before one can assume that it is an effect, wherefore the conception of an ultimate cause can only be the result of experience of facts. The axioms of Sciences, no less than the law of causation, are the real products of experience; they being the generalisations obtained by the mental processes of analysis and synthesis, they are said to be self-evident in the sense, not that the mind, intuitively, perceives them to be true, but that, their truth being clearly implied by the definitions of the very terms employed to express them, they admit of no formal demonstration; but the axioms are not, as alleged, so readily understood, nor their value so fully appreciated, except by those who are experts in the several Sciences to which the axioms relate; in fact, the axiomatic laws are discovered and formulated by only the ablest minds after laborious researches into the mysteries of things, and they are easy of comprehension, being expressed in terms of ultimate or final relations, which are the simplest possible. It is, therefore, an error to suppose that the axioms are intuitive principles, when the truth is that they are the results of a highly-wrought mental process. The ideas of Space and Time are said to be "necessary ideas," by which phrase it is meant that these ideas are involved in the very constitution of the mind prior to experience, the reasons assigned being "that it is impossible to imagine any portion of Space and Time to be annihilated, or not have existed." To this it is objected that the premises does not justify the conclusion; for the argument implies that the ideas of those facts of which the beginning and the end can be predicted are not "necessary," but derived from experience. We are thus led to the inevitable conclusion that all ideas whatsoever must be classified, some as necessary and the rest as *derived*. Against this bifurcation of ideas the following consideration is argued: The mind, in the course of its experience, becomes conscious of other minds of whose existence and individuality it is so far

assured that it cannot conceive of any one of them ceasing to live while it regards death as a violent breach of the law of continuity. The mind, indeed, gets severely shocked,—nay, feels inconsolably mortified,—at the occurrence of death: sorrow for the dear departed is an irresistible evidence that the mind positively refuses to be reconciled to even the fact or idea of death. The mind demands that every object living shall continue to live. Even as regards the atoms of dead matter, the mind in point of fact cannot conceive of their destructibility or non-existence. It follows, then, that the idea of every existent object must be a *necessary* idea, because the mind cannot help demanding the continuance of the existence of the object. All ideas, therefore, according to the intuitionist's method of reference become one class of necessary ideas, thus contradicting the original conclusion as to their bifurcation; hence the unsoundness of the intuitionist theory. On the contrary, the idea of every existent fact is formed subsequent to the mind's experience of the same. No idea of a fact would be accurate and complete unless it corresponded with the fact in every minute detail; and any desired degree of accuracy of thought would be gained only by a proportionately careful attention and close study. Such being the law of the origin and development of ideas, how can it be consistently maintained that they are inherent in the mind prior to study or experience? Now the idea of Space and the idea of Time are produced and developed in the mind, the former suggested by the idea of extension and the latter by the duration and succession of the mind's experiences. Correct ideas of Time imply a degree of mental classification, which argues experience. As to the idea of Space, there are objects both stationary and moving which affect the mind, and when the objects are removed mentally from their position, there is left something, which is indescribable, and which is called Space. We have no absolute conception of Space. But there is a striking contrast between Space and the objects occupying it. This contrast suggests ideas of Space, which are mere negations of our ideas of subjects, and our language regarding Space is only the language regarding objects, but negatively expressed. For instance, we speak of Space as being immaterial, unlimited, unchangeable, unending, uncaused, inscrutable, inexhaustible, indestructible, intangible, and so on. As to the idea of Time the mind is said to undergo a state of experience for so long. The length of the experience is called a portion of Time; the interval between one particular kind of experience and another is marked as a portion of Time; the longer the experience the longer the time. The mind is thus led up to enquire how long it is since an object commenced to exist and how long it is since an object ceased to exist. The idea of time in its early stage is associated with the continuance in existence of objects or mental states. The mind is next led up to enquire how long it had been before the oldest object commenced to exist, and how long it shall be after an object has ceased to exist. At this stage of enquiry the mind is confronted with a terrible *reality, vis.*, a vivid idea of an abstract length having neither a beginning nor end, and entirely unassociated with objects or mental states. Time is then conceived to be more appropriately an inseparable essential adjunct of Space, which exists from eternity to eternity. The ideas of Space and Time therefore, instead of being

simple, untutored and innate principles of the mind, as is alleged, are at once the products of severe analysis and synthesis, and are pregnant with the deepest of human experiences.

Conscience, viewed as the mind's sense of right and wrong in the sphere of its own intentions, is maintained as another intuitive principle. It is contended, on the contrary, that the law of conscience as much as any other law of the mind, is not an *a priori*, but a *derived* principle, grounded in experience. The mind's sense, knowledge or law of whatever kind it may be, is not prior, but subsequent to the two rigid mental processes of analysis and synthesis. The principle of conscience may be derived as follows: *First*, in the course of experience and by means of analysis and synthesis, the mind discovers and institutes certain laws and adopts them as the guide of future conduct, and since the essential nature of the mind is to secure a painless existence, it regards those laws of conduct as right which in experience are found to lead to a happy life, and those as wrong which lead to sorrow, misery and death. *Secondly*, in the course of experience, the mind acquires a familiarity with some of the fundamental distinctions between the two sets of laws, *viz.*, those leading to happiness and those leading to misery; so that in a number of simple cases it can readily distinguish whether a given law of conduct is right or wrong, that is, whether such law bears the marks of those laws previously discovered and designated as *right* or of those designated as *wrong*. *Thirdly*, the mind before passing a verdict as to whether a given law of conduct is right or wrong, invariably compares such law with the previously understood laws of right and wrong. In the absence of a *standard* law of right and wrong, and without a constant reference to such standard, no given law of conduct can be pronounced by the mind to be right or wrong *absolutely*. But in numerous simple cases comparison and judgment, analysis and synthesis, are so inconceivably rapid and simultaneous, that the mind, without pausing over the successive steps of its knowledge of a case, forms its verdict at about the same time that the case is presented to it. The astounding swiftness of the mind in such cases is apt to mislead people into the belief that the sense or idea of right and wrong is *intuitive*. In complicated cases the gradual development of the mind's sense of right and wrong and the processes of comparison and judgment, of analysis, and synthesis are most distinctly pronounced.

A particular case may be argued out in elucidation of the above remarks on the law of conscience. Let it be supposed that a certain man is deprived of his life: the question arises, is the deprivation of the life a right or a wrong act? The mind is at a loss to answer this apparently simple question. But supply the *standard* of right and wrong, and the mind has the clue to judgment. First, let it be granted that deprivation of life by a *natural* cause is a matter lying beyond the question of right and wrong; then the mind has no judgment to offer in respect to the above cause of death if it has happened *naturally*. Secondly, let it be granted that deprivation of human life is *right* if it has been caused under a *sufficient* warrant and *wrong* if caused under an *insufficient* warrant, and let it also be granted that death in the above-given case has been caused by a human hand, either under a sufficient or an insufficient warrant, then the mind could at once form its judgment whether the depriva-

tion of life in the given case is right or wrong. If an eye for an eye, and a tooth for a tooth, were demanded by a general law, the mind would justify such an exaction, or, if a general law enjoined a return of good for evil, the mind would deem it wrong to smite that smite, or curse those that curse. Right and wrong are not absolute conceptions; they pre-suppose and are used relatively to a higher governing law. Right is conformity and wrong is non-conformity to a general law. The religious and social sanctions create and guide the world. Conscience and the verdict of conscience varies as the general law. It is thus proved that conscience is not a primordial and intuitive principle, but it is a synthetic idea based on an analysis of other co-existing ideas of experience. The mind must first own its subjection to a superior governing law before it can have a sense of right and wrong. In the absence of all recognition of a supreme law of conduct, there is no operation and no existence of conscience. Let one mind accept the service of another mind, let one man be the slave of another; the master mind would then become the ruler of the slave-mind, and the slave would be continually oppressed under a galling sense of right and wrong. The master must be pleased at all hazards while he himself is no victim to the pangs of conscience. Woe befalls the man who, by a self-chosen act, displeases his parent, master, community, or king; but set a man free from the harassing control of ruling minds and give him his independence, which is his birth-right; he would then be as happy as a king. Servility to a law breeds fear of disobedience, and the fear is the sting of conscience, while freedom from law is a condition of happiness of mind. *Lastly*, the idea that it is impossible for the same thing "to be" and "not to be" at the same time and in the same sense cannot be intuitive. For, as a matter of experience, every fact known implies its opposite. A implies not A, and these two facts have their corresponding ideas produced in the mind. It is also a fact of experience that A excludes not A. Thus two contradictory ideas exclude each other. Now, if a fact has been proved to be in conformity with a general law, it cannot be said to be at variance with the said law at the same time and in the same sense, because the idea of conformity and that of variance, as a matter of fact, so exclude each other that it falsifies experience to suppose that both these contradictory ideas can be true of a fact at the same time and in the same sense. The so-called intuitive idea under discussion may be otherwise rendered thus: a fact is what it is in relation to another fact at the same time and in the same sense, and this *generalized* notion, springing from the mind's experience of the consistency and uniformity of the relations observed, generally all ideas said to be *a priori* are of the nature of *syntheses of facts of experience*. The marks of necessity and universality characterizing such ideas are not due to any so-called intuitions, but only prove the universality of the facts synthetized. When the mind becomes cognizant of the world, it recognizes, not a single fact merely, but a multiplicity of *like* facts; therefore, every single fact known is taken as a *type* of an infinity of *like* facts; and the mind's conception, of every single fact partakes of the nature of universals. *It is the generalized fact that makes the corresponding mental law, and not the law the fact.* The mind is somewhat like the mirror inas-

much as it reflects, so to speak, an object placed in contact. But the mind, unlike the mirror, is capable of retaining fully the ideal form even after the removal of the object. When the fact of the mind has been postulated, it means much—so much, that the acquisition of all ideas whatsoever is rendered quite a possibility through experience: it would be assuming too much to load the mind with what are called innate ideas. The burden of proof falls heavily on those who would advocate the intuitive theory, and the method of proof of such ideas is not possible except with the aid of facts of experience, but remark more in refutation of the theory of innate ideas. Seeds are not inherent in a soil; however fruitful the soil may be, the connection between the seed and the soil is one of perfect adaptation, the one to the other, while they are mutually exclusive. The seed is one thing and the soil is another. The soil, before it is overgrown with vegetation, must have the seed imbedded in it. Similarly, all ideas are separate and distinct from the constitution of the mind. While the mind, by virtue of its contact with its environment, conceives those ideas, the mind is adapted or as it were sensitized to receive, assimilate and develop ideas, principles or laws, all of which point to facts of experience, whether sensible or super-sensible. The laws relating to facts of *sensible* experience are the impressions communicated to the mind by, and through its physical equipment, and the laws relating to facts of *super-sensible* experience are the hypothetical and other positions of the mind based on previous mental exercises. While it is contended that the sum of human knowledge is the sum of all the experiences of the mind, it is distinctly maintained that the mind is *independent* of all its experiences. The mind is the man proper, and thought is subjected to all sorts of conditions and experiences; it exerts a power over its circumstances. We cannot conceive of man otherwise than as mind, and the life of man is fraught with evidences of the immense power of the mind. The various powers of the mind are involved in the general process of *mental classification*, by which it is meant that the mind *analyzes* and *synthesizes* all its experiences. The power of analysis includes the powers of perception and discrimination, and the power of synthesis includes the powers of memory, association and imagination, or judgment. The process of mental classification may be described as follows: The mind perceives an existing fact and discriminates its various features. The impressions or ideas thus acquired are next associated together in a manner suggested by the fact in question, so that the cognition of any one idea calls up other ideas associated with it, and finally these associated ideas are classified so as to form a perfect mental picture, or judgment, corresponding to the exact features of the fact under investigation. The mind is ever active in the acquisition and exercise of knowledge. The measure of knowledge is the measure of the experiences, while the accuracy of knowledge depends upon the accuracy of the mental classification. The fundamental laws of all correct knowledge may be enunciated as follows:—

No system is trustworthy if it is not the very outcome of a strict mental classification.

No mental classification, however rigid, is sound if it not based on correct notions.

No notion is correct if it has no foundation in fact.

Any system of thought or belief which cannot bear the test of the above principles must be rejected as false. The importance of correct knowledge cannot be too much insisted on, for, in the absence of such knowledge, the mind is very apt to be lead into serious errors and to suffer the penalties due to such errors. False systems, false beliefs, and false institutions, have played, and are still playing, their part, adding to the misery and arresting the progress of the human race.

SCIENCE NOTES.

TO THE NORTH POLE IN A BALLOON.



North Pole, despite the long, ominous list of martyrs to scientific or commercial curiosity, continues to exercise a fascination over many minds. This fascination Jules Verne has graphically depicted in his "Adventures of Captain Hatteras." The problem at present discussed is whether there is land, ice, or an open Polar Sea at the Pole. An attempt is shortly to be made to solve the problem by a Parisian aeronaut and a Parisian astronomer, Messrs. Besancon and Hermite, neither of whom has attained the age of thirty. The plan they propose to adopt, while original with them, is by no means new. In 1870 Silbermann, and in 1874 Sivel, published studies dealing with the practicability of reaching the North Pole by balloon. In complete ignorance of these researches, Messrs. Hermite and Besancon conceived, the same idea. In honor of these researches, which they later discovered, and as a tribute to the memory of an illustrious martyr to aeronautic science, they decided to name their balloon the "Sivel." A French paper, *L'Illustration*, thus describes the balloon:—

The "Sivel," when inflated, will measure 16,250 yards, and have a diameter of $32\frac{1}{2}$ yards. It will be capable of carrying $17\frac{1}{2}$ tons, and will have an ascensional force of three pounds to the cubic yard. The envelope will be composed of two thicknesses of Chinese silk, covered with a new, specially-devised varnish, which renders it absolutely impermeable, and augments the resistance of the envelope, rendering it capable of supporting, without rupture, a pressure of 6,400 pounds to the square yard.

The balloon, which is spherical in shape, will contain an immense internal balloon so constructed as to be perfectly and permanently inflated by 3,250 cubic yards of gas under the same pressure. This is intended to remedy, in great part, the grave inconveniences—the chief of cause of balloon instability—which result from hygrometric and thermometric variations produced by altitude changes. The interior balloon is furnished with two valves of automatic certainty which will be in communication with a ventilator moved by electric action. If the gas becomes thinner, the interior balloon can be depleted. If it becomes thicker, the interior balloon can be inflated. The "Sivel" is thus always inflated. The internal balloon represents about one-fifth of the entire balloon, a needed proportion, since bal-

loons raised 2,700 feet lose about one-tenth of their gas, independently of the loss occasioned by temperature variation. The "Sivel" will carry several pilot balloons to be used in studying aerial currents, and sixteen balloonets to supply, through its valves, the gas of the interior balloon of the "Sivel." The balloon's altitude will be regulated by means of a trail rope of considerable weight, which trails as a species of anchor over the ice.

The car, which is of osiers, is so strengthened by steel armatures as to be absolutely rigid. It is so arranged as to maintain in its interior a regular temperature. A safety petroleum heater is used for the purpose. The car will be prepared for all emergencies by making it unsubmersible, and furnishing it with runners for use as a sledge. It is ten feet wide by sixteen long, and will contain, besides the two explorers and their three aids, eight Esquimaux dogs, a sledge, an unsubmersible canoe, provisions and water rendered unfreezable by a chemical procedure. The total weight of car and contents is fifteen tons. Above the car is a bridge accessible by a rope ladder.

The explorers will sail from France in two steamships in the latter part of May, 1892, so as to arrive in Spitzbergen in July. There they will depart as soon as practicable, by favorable winds from the south. The exploration will last in all six months. Its cost will be \$108,000, of which \$12,000 is required for the construction of the "Sivel." The cost is defrayed by Mr. Hermite and some English capitalists of scientific aspirations. While the idea of reaching the North Pole by balloon is not a new one, it has had its details on this occasion for the first time worked out with great care."

THOMAS A. EDISON TALKS ABOUT AN ELECTRIC FLYING MACHINE.

In reply to the question "Have you ever thought of inventing an electric flying machine, the motor force of which would be electricity?" Mr. Edison is reported as making the following reply:—

"Yes, I have given some study to the question, and, of course, made some experiments in that direction. The bumblebee is a fine model to study for a flying machine, and the more I study that species of a high order of birds, the more complex does the flying machine problem appear. The bumblebee flies by the motor power alone. It has no natural aid, but must depend upon the rapid workings of its wings to fly. There is no wind and no feathers to assist the bee; it has small wings, entirely out of proportion to its large, robust body, and when it flies, the wings, as any observer can see, are worked so rapidly it is impossible to calculate the number of flops to the minute. But the little bird must, perforce, be the model to solve the flying machine puzzle, because it is propelled simply by native motive power. Could the bumblebee carry the weight of another bee on its back is a question often asked. Well, it cannot, and even if a flying machine were invented on its model, it would not be capable of carrying any weight save its own. Nature has done so much, and failed to go any farther.

"You see, if wings were applied to man they would have to be quite small in order to be worked rapidly. Large wings could not be moved rapidly enough, so the question of flying would never be settled by large wings, even if the motive propelling power were

a thousand times greater than any yet conceived of. A man might have wings constructed to carry his weight, but that would be all. Like the bumblebee, he would be unable to do any thing save carry his own weight, and that by sheer force of great power. Now, sea gulls have large wings, entirely out of proportion with their small bodies, but they have little motive power, and are simply kept up like a kite by the wind. If you will notice a gull you will rarely see it work its wings, but it keeps them outstretched and sails around the air in a beautiful style. No flying machine could skim about on the bosom of the wind like the sea gull. All birds propel themselves by flying and sailing. It is a natural action, but man cannot acquire it, at least not now in this day and generation, when so many secrets of nature slumber before the savant's eye for years. We can only go back to nature, and pause and wait for years, to understand the phenomena that now seem a mystery to our very finite minds.

I am not so sanguine about a flying machine because nature has her limitations. Anyway, many of her secrets lie hidden from us, and remain to enrich and glorify some bright and wonderful era in the future. Perhaps a century or so from now the flying principle of man will be invented or discovered. Things unheard and undreamed of may come to light in the future, and place us in the category of being too stupid to imagine and much less to invent them. But I have nothing to do with the future. If there ever will be a flying machine capable of carrying not only man but other weight with it, I, at present, cannot conceive it. There are certain fixed principles in nature we cannot ignore. We cannot pull ourselves yet through space by our own boot straps, and we cannot leap from the top of a house without climbing on top first."

"Why not take the bumblebee model and try it?"

"Nature made the bumblebee with motive power enough to carry its own weight and no more. Why it did not give the bumblebee more power I cannot explain; it is beyond the comprehension of my very finite mind. Man was not constructed with wings, and so he has to wait and solve the problem which nature gave to the bumblebee and birds."

ALUMINIUM.

The thoughts and experiments of industrial chemists and of scientists generally, are directed toward the problem of the cheap production of aluminium, the so-called "metal of the future." The production of aluminium and its alloys has for some time been ~~an~~ industry on a firm footing, in both America and Europe. The metal is very widely distributed in nature, existing in various well-known combinations in clays, corundum, cryolite, beauxite, even in some of the most precious stones, as the ruby, sapphire, garnet, topaz, lapis lazuli and tourmaline, but all its combinations are so very firm that its non-costly separation in the metallic condition has been a chemical problem of great importance. The Castner-Deville, the Cowles, and the Pittsburgh Processes produce aluminium in various alloys, and in varying proportions of purity, but their best efforts have resulted in cheapening the pure metal not below a dollar per pound. This price is restrictive upon the use of the metal in many

branches of industry, where it must compete with cheaper materials. A Chicago chemist has recently advanced the claim that he has discovered a method whereby the metal can be produced for fifteen cents per pound, but this claim meets with little favor from scientists in general, who state that the amount of energy required to loose aluminium from its bonds to silicon and oxygen must cost many times above the sum mentioned. But, however, this may be, the metal, even at present cost, is fast becoming a prime favorite in many lines of trade, and is each day finding new applications. It is marvellously light, non-corrodable, of great tensile strength and rigidity, and withal of lustrous beauty. These are all qualities which well warrant the belief that it is the metal of the future.

TURNING A RIVER.

Mining is not a dead industry in California. It is, however, kept alive by the skill of the engineer in place of the hardy venturesomeness of the simple miner. The millions that were taken out of California in the early days came from the heavy nuggets, the rich drifts, and the easily-worked places; the millions that are now being taken out of it come from the deep-lying quartz ledges, from the scientifically-conducted reduction works, and from the feats of technical engineers. One of the most remarkable of these feats—and it is doubtful whether it is not the most astonishing of all the undertakings by mining engineers that have been accomplished in California—has recently being conducted just outside of the little town of Oroville, in Buttee County. The enterprise in question was that of deflecting the Feather River from its natural course, so that a portion of the bed of the stream might be laid bare and dry: that particular portion being supposed to be the richest three-quarters of a mile of river gorge in California, if not in the world. Readers of Bret Harte and Prentice Mulford will remember the names of Bidwell's Bar, Long's Bar, Thompson's Flat, Plains of Bagdad, Cherokee, and Morris Ravine, all of which and many others are situated on or about the Feather River. The Feather River and its branches rise in the snows and high meadow lands of the Sierras and it reaches the Sacramento valley, after draining four thousand square miles of watershed, by a series of plunges over rocky precipices, of rushes through narrow defiles, and of dashes at mill-race speed through ravines which lie like clefts in these great granitic mountains. Into these clefts and ravines gold of an untold value has been washed by the hurrying waters of the Feather River. Bolders, seamed through and through with the precious metal, have been found in those enormous, water mills, and otherwise inaccessible crevices have been washed out by the swirling stream. What the man-miner could not do the river miner has done, and no matter where the gravel bed of the Feather has been worked, the returns have been like the stories of the romancer.

When the discovery of gold was made at Coloma in 1848, the news soon reached the settlers—then purely pastoral—of what is now Buttee County, and General Bidwell was among those who flocked to the mill-race that was destined to make California what she is. Bidwell was struck with the general similarity which existed in the color of the soil, gravel deposits, and general geological formation between the region about Coloma and that of Chico

Vecino, which was where he had settled. Returning home, he organized an exploring expedition, and, provided with pick, shovel, and cradle, prospected for gold along the neighbouring rivers. Rich deposits were found in and on the Feather River, near the junction of its middle and north forks, and there sprung up the settlement of Bidwell's Bar, very famous in the early history of California. The news of the riches of Bidwell's Bar travelled with equal swiftness to that of Marshall's discovery, and a flood of miners and adventurers swept over the mountains and through the valleys down to the bar, until almost every foot of soil was occupied, dug over, and washed out. The few miles of river above Oroville were the most frequented, the population of the camps within this district being as high, in the old flush times, as eight or ten thousand.

But the engineering problems of river mining grew each year more difficult of solution, until gradually the auriferous banks and beds were deserted. Though operations had been almost entirely suspended, the knowledge that the Feather was still a golden river had not died out. One of the spots over which the miner's finger has been most covetously crooked is the rocky defile just below Long's Bar. This section of the river forms the last of the narrow cañons of the whole stream, and it is in these cañons, with their rocky beds forming natural riffles, that the gold which was constantly being washed into the main river from the smaller tributaries has been caught and retained. This last of the ravines has always been pointed out as the great rich pocket of the Feather, but the natural difficulties of getting its stored-up wealth from out of a pocket that is three-quarters of a mile long; that has within it a roaring stream confined by walls of rock fifty, sixty, and seventy feet high; and that is protected by a river that has an unpleasant trick of rising a few score feet after each raid in the mountains—the difficulties of picking this pocket always stood as an effective deterrent to the miner.

What the miner with his small appliances could not do, an English syndicate of rich believers, aided by Major Frank McLaughlin (erstwhile one of Edison's most trusted Lieutenants), have succeeded in doing. Just at the spot where the river narrows down to the ravine there are two natural buttresses of rock, and it is between these that a big head-dam has been constructed. The dam is composed of spiked and bolted timbers filled in with twenty thousand tons of rock; is fifty feet wide and eighty feet long at the base, and is thirty-two feet wide and one hundred and fifty feet long on the top. It is protected up-stream by an apron of solid timbers, and will be further protected on its upper lines by a slanting deck. Over this the rising waters of the stream will wash in the rainy season without disintegrating and tearing away the whole of the structure, the dam being further protected by a sub-dam built against its base down stream, over which will be placed a second sloping deck to receive the fall of the water from above. While this head-dam was being constructed, a flume was built along the side of the ravine at an average height of fifty feet above the stream bed. This flume is sixty feet wide, five feet deep, and three-quarters of a mile long, the intention, of course, being to deflect the river into this flume and carry it to the end of the ravine, where the waters fall back to their channel again. A waste-way was made in the head-dam to carry

off the water during the construction of the flume. It will be understood that although the river has been really thus deflected, the bed of the stream did not immediately grow dry as soon as the waters were turned into the flume. Even when the last drop had run down stream by the natural channel, the bed was left as a succession of deep pools inclosed by rocks, the water in them being sometimes twenty or thirty feet deep. These pools of the bed were constantly receiving accessions from the seepage through the dam and the leaking of the main flume. A sub-flume was therefore made some twenty feet lower than the main flume, into which was pumped the water of the pools. To do this, under-shot wheels were built over the main flume, and power transmitted across the ravine by ropes which worked what are known as Chinese pumps. By this means the pool waters were diminished at the rate of an inch a day. Not a moment was lost when the sand and gravel became visible then; sluice boxes were hastily put together, and mining was actually in progress two minutes after the water had been pumped out. The confidence of the projectors of this great enterprize was realized, towards the end of last year, by a strike of pay gravel of immense richness. The water was drawn off from 3,000 yards of the river-bed, and, upon "cleaning up," the gravel yielded gold in the greatest richness. Recent despatches say it is hard to estimate the amount of wealth that will be lifted from the bed of the river, but the manager anticipates an yield of at least two millions sterling. A writer who has recently visited the spot says:—"The scene along the river is busy, as it used to be in the old mining days, but its character is entirely different. The works have more the appearance of some big railroad scheme. The workmen live in commodious houses of sawed timber, that are numbered like the leaves of a well-kept ledger; electric lights are up, and the close of day does not mean the close of labor. In fact, in the fight for gold, the irregular army has disappeared, and the well-trained corps of Sappers and Miners has taken its place."

ELECTRIFIED ROCK.

We hear of the discovery of a wonderful ore called "electric rock," which is said to contain a hidden force that puzzles and astonishes all who see it, and expert electricians in particular. The following account of the substance will be found of interest:—The rock is of a dark slate color, and somewhat lighter in weight than sandstone. It is composed of iron, aluminium, calcium and other minerals, and particles of gold are found sometimes. The discoverer says it will generate unlimited power, and give any desired amount of incandescent light. For illuminating business places and residences, it would be considerably cheaper than kerosene; in fact, after the building had been wired and the batteries prepared, the cost would be merely nominal, and the light would be equal, if not superior, to that produced by manufactured electricity. The making of the battery is very simple. The rock, in any quantity that is desired, is placed in jars containing a solution the chief ingredients of which are salt and water. The circuit is then completed, and the battery is ready for active business. The inventor claims that one charge of four hundred pounds of rock will last and produce light and power for at least a year before losing its force, and

that it is perfectly harmless, making insulation entirely unnecessary. In the discoverer's office, a nine-pound piece of rock has been ringing a bell since last November. A piece weighing half a pound was placed in a pint tumbler and wires attached to the call-bell, which it caused to ring as loud as an alarm clock. The test was made in the presence of several gentlemen, who pronounced it a wonderful discovery.

BALLOONS FOR NAVAL PURPOSES.

Some experiments have been lately conducted by the French navy, which will have an important influence on the future use of the balloon in time of war. A balloon was constructed with a capacity of 11,300 feet, especially for experimental purposes. It was inflated with hydrogen, which was carried in reservoirs under a pressure of 100 atmospheres. A tail rope, 130 feet long, served to connect the balloon with a ship of the fleet when the balloon was required to be kept captive for reconnoitring purposes. It was found that, on a clear day, all important objects within a radius of 18 to 24 miles were clearly distinguished. Another very important point was that the waters of the sea, when observed from a considerable altitude, were found to be singularly clear, and the details of the bottom were in one of the ascents perfectly distinguishable, even at a depth of 80 feet. This peculiarity allowed an observer in the balloon to follow the movements of the submarine boat "Gymnote," during its recent trials, without losing sight of it for a single moment, whatever its depth of immersion. The balloon used on this occasion was very stoutly constructed, having been a short time before towed at a speed of $10\frac{1}{2}$ knots an hour for a distance of 21 knots, by a torpedo boat, without being any the worse. Germany has now adopted balloons for naval purposes, and during the recent manœuvres at Wilhelmshaven, one of these was used from a war ship of the fleet for reconnoitring.

THE CHAMPAGNE SCARE.

According to the sensational statements which have recently been freely propagated, the champagne vineyards are on the eve of being destroyed by the *phylloxera vastatrix*, and in another year or two there will be no champagne. A writer on the subject gives some perfectly reliable facts and figures, which throw a somewhat reassuring light on the matter. The champagne vineyards yield on an average nearly ten million gallons of wine every year. Only a portion of this is converted into sparkling wine, the inferior growths supplying ordinary table wine for the inhabitants of the district, except in years of great scarcity, when they are utilized by some of the shippers. At the present time there are about seventy-five million bottles of sparkling champagne in the cellars of the shipping houses who, moreover, hold a stock of over 4,000,000 gallons of wine in cask. The annual sales, however, average 20,000,000 bottles, so that the stocks in hand, large as they seem, represent only between four and five years' consumption. If therefore, the champagne vineyards were on the point of being annihilated, the wine might become altogether unobtainable, either for love or money, before the close of the century. But it is by no means certain that the vineyards are about to be destroyed. No one can deny the serious ravages of the *phyl-*

loxera in the Charente vineyards, but the latter have been largely replanted, and are now steadily recovering, for during the past few years they have yielded at each vintage an average of 41,900,000 gallons of wine, the whole of which has been converted into brandy. The real champagne districts, however, have been confined to the department of the Marne, and so far the *phylloxera* has not been found in any of them. It has, however, been detected in Treloup, in the Aisne, within 500 yards of the border of the Marne, and it is this which has caused the panic. It is thought that some of the young vines which have been purchased at Treloup during the last 12 months may have spread the disease through the localities whence the best varieties of raw champagne are derived. If such prove the case, the situation will be very serious; but at present it is impossible to arrive at any certainty on the point. The *phylloxera* virtually disappears during the autumn and winter months, and no one will know until next May whether it has really penetrated the champagne vineyards or not. Meantime, all precautionary measures are likely to be carried out, all the remedies indicated by the scientific research of recent years will be brought into play, and a large fund will be subscribed. If the champagne growers and shippers are only in earnest, they may succeed in annihilating the scourge even more promptly than did their *confrères* in the Medoc. The burning of contaminated vineyards, and the saturation of the soil with the most approved chemical preparations may do much to check further invasion. The situation at the present time is certainly a threatening one, but it is clearly a little too early to assert that there is to be no more champagne.

THROUGH THE GARO HILLS ON A CHAIR.

(Concluded.)



OUR next day's march to Rungmageri, lay through easier, but less picturesque, country, and nothing of any particular interest occurred by the way.

We set out again from there, the next morning soon after daybreak for Emangeri, a distance of eleven miles. The road lay through thickish jungle and here, for the first time, we saw some signs of the animal life of which we knew the forests to be full. As we neared the bed of a small stream we caught sight of two otters. A shot was fired at them, but with no result, for they hastily disappeared among the rocks.

Soon after this, on the other side of the stream, a slight rustle among the leaves and grass put us all to attention again, and suddenly a deer appeared, for an instant in an open space—only for an instant.

We had hardly time to make out what it was before it had sped swiftly out of sight.

Not many minutes after this a more ominous sound than mere rustling was heard, causing the men to stop and strain their ears in the direction whence it came, whilst the constables loaded their rifles with a promptitude that showed they scented danger. It was a crashing sound among the bamboos, as though some one were tearing them branch from branch and trampling them underfoot, which distant and faint at first, came rapidly nearer, and even, I, inexperienced traveller that I was, did not need to be told that an elephant was making his way towards us. Suddenly, one of the constables gave an order, and the men, one and all, simultaneously, set up a mighty shout and then listened for the result. Had we been in any doubt as to the nature of the enemy, it would now have been set at rest, for the creature lifted up his voice and trumpeted long and loud, as he turned tail and fled, and we heard his retreating footsteps with a considerable amount of relief. To me, I confess, it was a very anxious moment, for I felt sure that it would have made very short work of me and my chair, had we come to close quarters.

We reached the village without further adventure, and were taken to an unusually large *nockfunti*, the inside of which was decorated with fantastic figures of men and animals carved rudely out of wood.

Our next day's journey to Raiwak, admitted of some variation in our programme, inasmuch as we had to go by water; the way by the

road being more circuitous and less pleasant. We embarked in four dug-outs, leaving the horses to go by road in charge of the coachman who was accompanied by two guides. On our reaching Raiwak, the head man of the village lost no time in fitting three dug-outs with platforms of bamboo for the ponies, which conveyed them for some distance, when they were again landed to continue their journey by land. The rivers, the Rangdik, and the Samaseri, were the most beautiful I have ever been on, the hills on both sides being picturesque irregular in shape, and well wooded, while the rocks and banks were profusely covered with a variety of ferns, including the most delicate kinds of maiden-hair. We had to make our way through several fishing weirs, and occasionally to shoot some small rapid. It was a lovely morning, crisp and cold, and the air was full of the hum of insects, the cooing of wild doves, and the chattering of innumerable monkeys, as they swung themselves from bough to bough on the trees, gibbering and grinning as though put out at our intrusive presence.

Peacocks strutted to and fro on the banks in all the pride of their beauty, spreading out their gorgeous tails in the sun, and screeching to each other as though to call attention to the display. I am ashamed to say, a shot was fired at one of them from our boat, but to my great satisfaction, it missed its mark and only served to put the beautiful birds to flight.

On arriving at the village, we learnt that the coachman had not yet got in with the horses. We had not, however, to wait very long before we heard his voice uttering tearful lamentations to his fellow, servants outside. The man himself soon made his appearance in the *noekfunti* with a face green with fright, and limbs trembling with emotion; the tears actually stood in his eyes, as, with broken voice, he tried to give us an account of his day's adventures.

He had, it seemed, been deserted by the guides, and not knowing the road, was forced to find his way by the river and keep along its banks. In the excitement of the moment, he solemnly swore that he had encountered almost every wild beast to be found in the hills of India—buffaloes, elephants, tigers, boars, panthers, everything in short, that his excited imagination could conjure up. But by-and-by as he cooled down, the list of animals began to dwindle by degrees, till there was only one left—a tiger, which had come down to the water's edge to drink, and from which he had hidden behind a rock. To this statement he adhered to the last, and doubtless it was true.

Under the genial influence of a fire, and a good dinner, however, he speedily began to forget his troubles, and in the course of a few days had begun even to brag of his exploits, and to pose as a hero among his comrades, who had had no such thrilling encounters, or which to base blood-curdling stories as they sat over the fire at night.

In the evening we were interviewed by the chief of the next village, who had come in on purpose to greet us, and brought with him a present of some very fine fish. He, unlike most of the Garos could speak Hindustani, which enabled us to converse with him without the aid of the interpreting constable. He was very profuse in his expressions of pleasure at the prospect of receiving us at Sijoo, his own village, and on our arrival there the following day organised a fishing boat for our entertainment, bringing seats for

us down to the riverside, where we sat watching the performance for about an hour and a half.

At Sijoo we found a rest-house different from those to which we had been hitherto accustomed. It was a substantial mud-walled hut, built by one of the missionaries while staying in the place, and we found it much cleaner and more comfortable in every way than the ordinary *nockfunt*.

We left Sijoo the next morning at nine o'clock, and after two more quite uneventful stages, we reached the village of Nongmein, the first in the Khassia Hills, on December 11th. Here we should have been met by some Khassia constables sent by the Commissioner of Shillong, but, for some reason or other, they failed to put in an appearance. Two of our own men too, with the ponies, we found to be missing on our arrival, and to our great alarm, they did not turn up all night. Finding that they could not reach the village before dark and fearing to lose the road, they elected to stop about half-way, and slept in the open, at the junction of two rivers. They were without fire or light of any kind, and as the place they selected was known to be overrun with tigers, it is matter for great surprise that they ever reached us in safety at all.

The road to Mongpilung, our next stage, was very difficult, so steep in one part that a bridge of bamboo had to be improvised for my pony to cross, and we were delayed quite an hour getting the animal over it. The consequence of this delay was that we were caught in a severe thunderstorm, with heavy rain, which not only soaked our baggage, but drenched us almost to the skin.

On arriving in the village we found it inhabited exclusively by women, their better halves being all absent in the jungles tapping the rubber trees. The Khassia constables had not yet arrived, and our men could understand little or nothing of the language of the people, though they contrived to make it clear to them that we required food for ourselves and servants, and the customary fare was soon forthcoming. In this village, we had for the first time during our trip, great trouble in getting coolies to carry our things, and were forced to remain in the place all the next day, doing nothing. This gave us all a little rest, however, and enabled us to have our baggage and clothes thoroughly dried before using them again.

Only a woman can properly appreciate the feelings of dismay with which I discovered that the portmanteau containing most of my wearing apparel was anything but watertight, and that its contents had suffered severely from the heavy dowsing. As I drew out my garments, one by one, and contemplated my only decent gown in which I had hoped to make a respectable appearance before strangers in Shillong, streaked with dirty water stains, the velvet trimming crushed and shabby; as I looked at some ribbons the only finery I had allowed myself, and saw that their dye had run out over a pair of new kid gloves, and all over my clean pocket-handkerchiefs; I must confess that my heart sank within me, and though I did not actually shed tears, I felt them rising, and, for that moment, was anything but the heroine my friends in Sura fondly imagined me to be.

The next morning we were off at daybreak on our way to Torehiling, a stage of thirteen miles through rather troublesome country. We had to cross a wide river, for which purpose rafts had

to be constructed on the spot, off one of which my pony contrived to slip, dragging the unfortunate coachman with him, who, however, being a good swimmer, got no harm beyond the ducking.

We reached the village early in the afternoon, and here again, we found a total absence of the male portion of the community, and had difficulty in getting together the number necessary for the next day's journey. There was no regular *nockfunti* either, but the people hospitably turned out of one of their own houses for us.

For the next two days our journeys lay through comparatively uninteresting country, and, were quite uneventful, and on the 17th, we reached the village of Hongstein towards evening. It was the most populous village we had yet entered, and we began to see a great difference between the Khassias and their Garo neighbours, the former being much noisier and more self-assertive than the gentle people we had left behind.

A house was given up to us in the usual manner, and we had not been in it long before a stranger forced himself in, and began to talk to us most volubly in Hindustani. As most of what he said appeared to be rambling nonsense, we came to the conclusion that he had been dining "not wisely but too well"—and as he became very demonstrative and showed an inclination to be a little familiar, we were constrained, in spite of every desire to be hospitable, to show him the door. We had some difficulty, however, in getting him to go through it, and he had eventually to be led out by one of the constables, and we were able to sit down to our dinner in peace.

The next morning there was considerable difficulty again in getting coolies, and while we were negotiating for some, we were greatly relieved by seeing the Khassia constables, who should have met us at Nongmeim, suddenly appear upon the scene. To my great delight, they had brought with them letters and newspapers, and what was more acceptable even than these—as our provisions were running a little low—some stores, consisting of bacon, herrings, biscuits, &c., &c., for which we were indebted to the kind thoughtfulness of the Commissioner of Shillong, who, although he had never seen us, and knew of us only as travellers, went out of his way to offer us this timely hospitality.

He was out in the district when we reached Shillong two days later, otherwise we should have put up at his house. As it was, we took up our quarters in the dāk bungalow, disbanded our men, disposed of one of our ponies, and dismissed our faithful Garo constables who returned at once to Sura.

We had now come almost to the end of our rough travelling, and were once more in the midst of civilization. Shillong is the most English-looking of the hill stations I have seen. It is not so terribly hilly as Darjiling, but has fine, broad, level roads along which it is very pleasant to drive, while a little out of the town, there are some delightful pine woods, reminding, one of pretty spots at home.

We spent our Christmas here, and started again on the 26th for Moflong and Cherraponjee *en route* for Chela where our wanderings, as far as the hills were concerned were to terminate.

We did our last stage from Cherra to Chela on the 28th. Before we started, we received a visit from the *Durogah* who had come to arrange about coolies. He was a rather important individual, and spoke with decision and authority on matters which we

had hitherto arranged for ourselves. To my dismay, on looking at my chair, he pronounced it unfit for the journey before us, the roads being so steep, he said, that it would be impossible for the men to carry me in it with safety. This chair, which had been so kindly rigged up for me at Tura, and which had carried me so pleasantly through country quite as rugged as I imagined any before us could be, had become quite dear to me and I was very loth to give it up.

I expostulated, and assured the man that it was capable of carrying me anywhere where a man could go, and that I had already made many very steep descents in it. It was useless however; he was not to be persuaded, so reflecting that he certainly knew more of the road than I did, I yielded. The dear old thing was taken to pieces, and I was put instead into an instrument of torture, called a *toppa*. This is a kind of wicker chair, high all round but on one side, and carried on the back of the bearer, secured by a strap across the chest.

Bitterly did I repent before the journey was over that I had not stood more firm in the matter of the chair, and followed my own better judgment as to its capabilities, founded on my experience of what it had already accomplished. The road, though a decline from first to last, was good, and nowhere were there such steep descents as some down which I had been carried in safety in places in the Garo Hills. To add to my mortification at this discovery, I found that the tall sides of the *toppa* completely shut out the view of the scenery except immediately in front of me, and as I was going backwards, as it were, I thus lost much of the beauty of the most picturesque stage we had yet made. When we came to what, I suppose, were considered show spots in the landscape, my bearer considerably stopped, and turned me with sudden jerks from side to side that I might the better see them, and then, after a few seconds, turned round again, and went on his way.

The Khassia contrasts favorably with his Garo *confrère* in the matter of physique and appearance generally, being usually a fine well-built man, and often very good-looking. He is independent in his bearing, and though perhaps not so good-natured as the Garo, is possessed of a flow of animal spirits, and cheerfulness which, to people accustomed to the coolies of the Indian plains, is refreshing in the extreme.

The men who formed our party, were, for the most part, young and buoyant, and they jabbered and laughed as they carried their burdens with a merriment that was at first quite contagious. But when, at last, some unusually good joke (probably at my expense) provoked them into fits of laughter, I began to realise that though that kind of thing may be very pleasant to the ear, there are occasions on which it may prove very much the reverse in other ways.

To be lashed in a kind of basket to the back of a man, whose frame is, every few seconds, convulsed with laughter, shaking and quivering, with every breath, is productive of anything but pleasant sensations, and as peal succeeded peal, I began to feel symptoms of that terrible kind of sickness known only to those who have been to sea. So incessant did the laughter of my bearer become that I was at last completely knocked over by nausea and had to call a halt, get out of the *toppa*, and seek to recover myself under the friendly shelter of a tree.

Glad indeed was I when we reached Chela and found ourselves beneath the hospitable roof of the missionary and his wife, with whom we were to stay the next two days. They were just out from home, the only Europeans in the place, and seemed as pleased to see us as we were to see them. A refreshing cup of tea soon dissipated all feeling of the sickness caused by the ill-timed mirth of my Khassia bearer, and we were soon sitting together over a bright fire, chatting as comfortably as though we had been friends of long standing, instead of having then met for the first time.

• We stayed at Chela till New Year's eve, when, our wanderings over, we took a last leave of the hills and left by boat for Chattuck, *en route* for Calcutta—our kind hosts standing on the bank waving their *adieux* till a bend in the river took us of sight.

A KISS TOO LONG.

"Alas ! how easily things go wrong,
A sigh too much, or a kiss too long,
Then comes the mist and the blinding rain,
And life is never the same again."

—George Macdonald.



SHE was back in Old England, yet she was longing for a much dearer, far-off land. She had come back to die in the home of her forefathers and her childhood, but she would much rather have been dying in India, the country where she had lived so long. "These English skies are too cold, and the winds are too keen," she said, drawing her wraps closer round her as she shuddered, "I have lived too long in the sun," she continued, speaking to the golden-haired girl at her feet. "Ah, child ! I have been where there are passion and warmth and love, and now all my living is done. The sun may shine here, but it shines fiercer there ; it can kill with its fierceness too ;" and she sighed as she thought sadly of what the Indian sun had done for her. "Ah ! but you have fearful rains, and cloudy skies as well," said the girl at her feet. "Yes, but when bright they are blue, so blue," said the older woman ; "look at that wretched scene out there," and she pointed to the bleak winter's day outside. "The winters were summer-sweet there, all sunshine and roses. You are young ; you will like the land where the nights are more beautiful than the day ; where there is such moonlight as is never to be seen here, while the shama's song is sweeter than that of any English nightingale. And you are going there," she ended up with a sigh, "while I must die, and be buried alone in this cold, cold North." "But why do you love India so much better than your own country ?" asked the girl ; "it seems strange to hear you talk like this, when I have seen men and women glad to come home again, and wretched at having to be exiled once more to toil and slave out there." "I can scarcely say why I love it so," replied her companion. "It has not been very kind to me on the whole. I have lost my health and those nearest and dearest to me, because we remained out there too long. But can't you understand, child ?" she continued, laying her thin, white hand on the golden head beside her. "It was there where the palm-trees wave and the bulbul sings that *we* met, and worked, and loved, and lived, in that land in which I have left him sleeping. ~~Also~~ so-called life is not life, it is often mere existence.

But there I have *lived*, and I should have liked to have returned to share his grave in the east; but that is not to be."

"I understand," was the girl's reply.

"And you will understand better, child," the woman said, "when you have been there some little time, for it is the pleasantest country in the world for young people—that much-abused India," and she smiled at the remembrance of her own gay youth. "Ah! no," said the girl, turning from her; "it could not be the same to me as it has been to you. I am going out there to be married."

The words told nothing, yet they told everything to the woman who had only known this girl for a very short time.

"Then, child, don't get married, and don't go," said the old lady.

"But I must," was the reply, given between smiles and tears, as Evelyn Dering thought of Ted, the brother who was to go to college, and Dick into the army, while she, who was one of a large and poor family, was to become so rich, and able to help them all.

* * * * *

A steamer was ploughing its way through the English Channel and on its deck stood a girl, with an oval face in a frame of golden fluff, and a pair of large eyes that were gazing at the distant coastline with a world of longing in them. There was no one near, and she stretched out both hands in the direction of the land she was leaving with a pitiful little gesture of despair, the sunlight catching the flash of some diamonds as she moved. The spray played round her, and a sea-gull swept by now and then, but the girl stood motionless, for a sudden and terrible yearning had come over her for the home which she had left for ever. "So here I am", she thought with a queer, choking sensation in her throat, and the whole blue sweep of sea and sky dimmed by a mist that swam before her eyes. "Here I am, going out to the only person in the world who wants me, and whom I don't want."

She heard a step on the deck behind her, and turned round to find herself face to face with a man who glanced at her for a moment and then said politely, "Can I get you a chair?"

A smile crept round the corner of the girl's mouth, then danced into the dimples in her soft cheeks, and finally flashed out of the eyes upraised to his. "No, thank you," she said, in a demure little voice, as she moved away, disappearing at last down the companion-stairs.

The man laughed as he looked after her, thinking, "An unfledged school-girl going out to her parents; has been brought up in the country, I should say. Lovely eyes and hair, but otherwise unremarkable." Then, as he paced the deck quickly, he forgot her, saying to himself, "Thank goodness I am free to sow my wild oats for another year—and then"—and here he sighed at the thought, "I suppose I must settle down into the staid, married man." At this point of his meditations, Gascoigne Messenger lit a cigar, and laughingly muttered: "Audrey, you are dear, but Freedom is dearer." Then came in his thoughts brought before him the vision of such loveliness as seldom falls to the lot of one woman, but the remembrance did not fill him with a single spark of tenderness, and a week afterwards, he was making love to little Evelyn Dering, the girl with eyes and hair like one of Millais' children.

* * * * *

The night was beautiful, clear, and starlit, and Evelyn Dering felt

that some of its peace and beauty had crept into her young heart taking away some of its sadness. The steamer was at anchor in Garden Reach, and was not to proceed any farther till the following morning; and the girl was leaning over the bulwarks, gazing with curious eyes at the new scene before her. The man who stood beside her touched her hand, and said, "Evelyn, don't give your thoughts to anything but me, for we shall never be together again."

"It is such a lovely night, and such a lovely sky, that I had forgotten everything—even myself," said the girl, turning suddenly to Gascoigne Messenger.

"It is very beautiful," he answered, "and makes me think of a line I saw somewhere in a book the other day that 'certainly we never know what stars are till we come to the East'—but, to me, there will never come such a night as this again."

"Nor to me," whispered the girl.

"Ah, Evelyn!" said the man catching both the girl's hands in his, "If only I had been rich, or you, and not my cousin Audrey had been the heiress. If you had been the heiress, would you have stooped so low as this penniless soldier?" and Gascoigne Messenger laughed a little bitterly.

"Yes, you know I would have 'stooped,' if only to lay my all at your feet," replied the girl in a low voice; and then, angry with herself for having said so much, she drew her hands out of his and turning away, left him.

But Gascoigne Messenger, who never denied himself anything, hurried after her and stopped her at the foot of the companion-stairs.

"The last night, and no good-night," he said reproachfully.

"Good-night," was the cold reply, as the girl put out her hand.

"Evelyn," said the man in a pleading tone, "we shall most probably never meet again. India is a big country; you will lead a quiet life; I am ever on the move, and scarcely likely to go to the place which holds your future home. Won't you grant my request? It is a small one, and I have asked so often."

He knew he had won before he had finished speaking; and though it was a very white face which was raised to his, the lips which he touched were warm and sweet, and his own lingered on them long. It was Douglas Jerrold who wrote of a woman's beautiful lips, and man's usual fate of being wrecked on the coral reefs, but, this time, it was a woman whose life was wrecked by a kiss, for the next moment Evelyn Dering saw her betrothed husband standing on the staircase watching her, and she knew that, for her, it was all over, for Charles Basset was of a stern and unforgiving nature.

What happened can be summed up in a very few words. A burst of temper on the part of the elderly lover, who could not wait but had hurried down to meet the girl who was engaged to him; insolence on the part of the younger man, and grief on the girl's side.

"I will do for you all that I have promised, Evelyn," said Charles Basset sternly, "but knowing that you love another man, I cannot marry you;" for he could not forget the picture that had met his eyes—the picture of the clinging arms and impassioned kiss. The girl thought of the disgrace; of the return to a home where she would not be welcome; and the impossibility of accepting any favors at the hands of the man she had wronged, and thought

she could not bear it. She did not know that she could have lived it all down. She was too young and inexperienced ; so that before the next day dawned, the slight figure with its sweet face, cold and white in death, was drifting down the river ; at peace so far as all earthly trouble was concerned.

A scandal?—of course there was a scandal ; there always is for a short time. But Gascoigne Messenger walks the world with a very contented smile on his face, envied by all men for the possession of much wealth and a beautiful wife, and Charles Bassett still toils on in the land of the sun, for Ted Dering has proved an expensive young man, and his younger brother Dick a wonder to behold in his martial scarlet and gold.

GRETCHEN.

THE EDITOR'S EASY CHAIR.



OMEN AT HOME, WHO ABOMINATE A PERSONAL USE OF perfumes, have invented a brand new way of suggesting sweet and flowery odors. These aristocrats protest that immaculate cleanliness, sunshine and fresh air supply the only fragrance a thoroughbred should care to carry about with her; and in proof of their good faith they all affect superfine but scentless soaps, salves, and lotions, with pure starch powders at the toilet. In genuine English fashion they insist that every garment before it is worn must be exposed to a prolonged sun bath. No more violet sacheted laces, cologne-dried hair, with breaths of white rose and jasmine to stir the senses as my lady goes by. All these little tricks have been relegated to another class. Still, notwithstanding her vigorous denunciation, the feminine soul cleaves to goodly perfumes. She could not put them altogether from her, and as a sort of compromise has transferred the formerly-cherished luxury from herself to her surroundings. This new prejudice does not extend to her apartments, and these she is filling with vague yet delightful suggestions of flowery meads, rain-washed woodlands, clean-smelling herbs, and exotic blossoms, rich and heavy. Indeed, the odor and not the color is now used, to distinguish different chambers. The rose room signifies that charming nest, hung very possibly in warm pink tints, where every inspiration fills the lungs with an ecstacy of subtle sweetness. Not only does this conserve of blended fragrance rise from wide-mouthed jars guarding the deep hearth, but liberal handfuls of the spicy petals have been strewn beneath the divan rug, insinuated into seductive silk pillows heaped high in the dusky corner. It permeates cunningly-worked head-rests, ornamental pouches decorating low embroidery chairs; it is recognized in the very wax melting in tall taper stands, and again, like rare incense, burns in silver oil-fed lamps. Roses of every name and color—red and white, costly long-stemmed beauties and simple hedge—have alike perished in sacrifice to a fastidious taste. Lavender, varied with orris root and verte verre, lend an indescribable charm to fresh chintz-furnished morning rooms, making them eloquent of spring-time and out-door loveliness. It is execrably bad taste to light joss sticks any longer, but when a heavy Oriental fragrance is sought in velvet-raped boudoirs, where Eastern stuffs, soft lounging couches, East India idols and stained glass predominate, the effect is gained by dropping one live coal in a tiny saucer of frankincense. Some women are so captivated with the new idea that, when guests are expected, their apartments are thoroughly sprinkled a quarter of an hour in advance of the strangers' arrival. Geranium water tinges

the air with a clean pungency, while the extract of lily leaves and the always-delightful opopanax are prime favorites.

GYMNASTIC TRAINING FOR WOMEN IS BECOMING FASHIONABLE in America, as it has been for some time in Europe. At first, clubs and dumb-bells were in vogue, and young girls developed their muscles in the same way as men, and with like effects. The result of this development of muscularity was by no means satisfactory. Girls became strong and healthy, but lost in grace and feminine bearing, and after a few years of married life they showed a tendency to beefy stoutness that was the reverse of charming. This produced a reaction, and it was found that masculine exercises are unsuited to women. Now a new kind of physical training for women is coming into vogue, and it has the advantage of not requiring a teacher or attendance at a gymnasium. Every girl can practice in her own room. The preliminary preparation is a breathing exercise. The girl stands erect with heels together, head well thrown back and arms straight down by the sides. Then a long breath is drawn, inflating the lungs thoroughly. This will start the circulation, and will prepare the body for other exercises. It should be done with the windows open, so that the air of the room may be pure. The next is a head exercise, and is done while standing in the same position. This is done by bending the head slowly forward, and back, and to the sides, and then quickly around as far as possible from both sides. Girls with slim necks will find this exercise very useful. It develops every muscle of the neck and chest, and gives a grace and nobility to the motions of the neck which show to great advantage. This is a favorite exercise with actresses and society ladies whose dress exposes the neck. For strengthening, broadening and developing the chest and shoulders there are a number of exercises. First, in the same old position, the arm is brought, with the hand open and without bending the elbow, around by the side of the head and body in a circular or cart-wheel motion. This is done as rapidly as possible, always being careful not to let the elbow bend. This is very good for girls who are what is known as "hollow-chested." Another chest exercise is done by bringing the closed hands rapidly up to the chest, palms out, and exhaling at the same time. This is also good for the muscles of the arm. Another is to take a stick of some kind, an old broom-handle, umbrella, anything that is handy, and try bringing it up over the head and down behind, keeping the arms perfectly rigid. There are two exercises which are used great a deal for the back and lower limbs, one of which is done by trying without bending the knees to touch the tips of the fingers to the floor. This is the one athletic exercise in which woman exhibits her superiority over man. The second one is done by trying to rise from a sitting position on the floor without touching the hands to the floor, using one foot only. The exercise discounts all the patent pads on the continent as a hip-developer. One more exercise may be recommended, which must be gone through carefully. Take a chair, use it for supporting the hands, which you will have to place quite far apart, stand as far back as your arms will permit, and bring the body down until the chest rests on the chair. Then send it back again. This gives action to the muscles of the arm and forearm, to chest and back, to the neck and, in short, is an exercise for the whole body. Ten minutes' work

in the morning and ten at night are sufficient. When the exercises for the day are over, a crash of Turkish towel should be taken, and the body rubbed until the blood is well started and the system in a glow.

ALL BOOKS NEED NOT BE READ CAREFULLY; INDEED, IT IS often a waste of time to linger long over a volume whose entire thought is not essential to one's purpose. It is an art acquired only by practice to glean wisely and rapidly from a somewhat barren yet occasionally fruitful book. Many, probably most, volumes demand time and careful thought. The second reading of a good book is often of great value. The thoughts retained from the first reading are impressed more fully on the mind, and become assimilated with one's mental structure, while others of value that were unnoted before, are gathered in. If there is no time for a second reading, it is an excellent idea to read with a blue pencil in hand, and to mark those passages on which one would like to bestow further thought. In the eyes of some people marking a book is an unpardonable sin, but the practice has many advantages. The objection that a book whose margins are interlined looks less clean and fresh than if free from marking, has no weight. Of what value is a shelf full of books that have been rigidly kept free from those written comments and look as clean as if just from the publisher, except to command a higher price when, some years hence, our cherished possessions are taken to a dealer in second-hand literature? A judiciously marked book is a source of delight to the marker and his friends, and becomes tenfold more a part of the reader's thoughts than any other. Read with a friend, if possible; not necessarily aloud or together, but if the thoughts of two friends are directed to the same course of reading during the day, its subjects are pretty sure to be discussed and its substance more thoroughly digested and assimilated. Years after, an allusion to the book or a quoted passage recalls the thought and the friend both profitably and pleasantly. Discussion always emphasizes and greatly facilitates comprehension of a written page.

A WRITER IN AN AMERICAN PAPER SAYS:—"THE GREAT TROUBLE with thousands of women is that they are discontented. 'If I were only rich,' is the cry of hundreds, 'how happy I would be.' For me to tell you that you would not be happy amid wealth, would be for you to disbelieve me. I shall not say so, but let me tell you what I once heard the late William H. Vanderbilt say over a table laden with the luxuries of the land: 'Since the death of my father I can remember only three nights when I have been able to dismiss matters from my mind, and find sleep.' To associate happiness with riches is one of the greatest fallacies of the time. Money is a comfortable thing to have, I grant you, but much of it is just as much of a burden as too little of it is a deprivation. To be discontented because you have not the means of a some other woman of your acquaintance, is to act the part of a foolish woman. All the wishing in the world won't bring another cent. to your purse. Let circumstances take their course; our conditions in life are always changing, and where there is lacking to-day, there will be plenty to-morrow. Try the experiment of a contented mind, and see what happiness it will bring you."

A RUSSIAN PRIEST, WHO HAS BEEN AROUND THE WORLD, TOLD a reporter, some time since, that what struck him as especially noteworthy in his travels was the widespread prevalence of the English language. He said that, even with a slight knowledge of English, he found himself far better off in foreign lands than were those who could talk only French or German. There have been periods of European history when the court language, the language of the educated and polite, has been, first Greek, then Latin, lastly French. But the English language, in the opinion of many, is destined to become, not merely the court language of Europe, but a medium of general communication throughout the world. There are many reasons for this belief which we will not stop to consider. But if it be true, every English-speaking person should have a certain pride in keeping the language pure, so far as his influence and example can prevail. We listened, a few evenings since to a speech expressed in the choicest language, and almost faultless in its rhetoric and syntax, yet one oft-recurring word was continually mispronounced; it was *government*, which the speaker called *guv'munt*. Such an error is not only painful by contrast with general excellence, but it is inexcusable, and we may almost say, criminal. It may take a little longer to say "government" than "guv'munt;" "history," than "his'try;" "library," than "lib'ry;" yet many words are mispronounced through no saving of time or care, but, it would seem, for the mere pleasure of wrong-doing. Is it easier to say *git* than *get*, for example; then *rid* can be pronounced more easily than *red*: for, in the latter case, as in the former, short *i* is compared with short *e*. Yet five men will tell you to *git red* of a difficulty, where one will advise you to *get rid* of it. But there are many who really do their best to speak correctly, and whose mistakes arise, not so much from careless habits, as from lack of knowledge. All honor to such, for they are building better than they know. Upon the corner stone of carefulness may be reared, by patient toil, a temple that Wisdom herself will not scorn to occupy. In a speech by Edward Everett, found in many school-speakers (upon the voyage of the Mayflower; the landing of the Pilgrim Fathers, etc.), occurs this sentence: "The dismal sound of the pumps is heard." We once heard an intelligent man arguing that the verb in the quotation was incorrect, and should be *are heard*. Of course the slightest knowledge of syntax and parsing would have taught him better, for *pumps*, the only plural noun, is governed by *of*, and is in the objective case, while *sound* is the real subject, and is singular. Moreover, sense, aside from syntax, would seem to teach that the pumps are not heard, but the sound of the pumps. Still, as he made a common error, we will say a few words of general caution. The subject of a sentence very often stands next the verb, and we may become so accustomed to this arrangement as to insensibly make the number of the verb agree with that of the noun which immediately precedes, whether it be the real subject or not. If the intervening noun is plural, the verb is then made plural, though its proper subject may be singular, and *vice versa*. A few examples of false syntax, illustrating this point, are herewith appended:—The simplicity of savage nations *render* them liable to be imposed upon by crafty traders. The leaves upon each separate branch of that magnificent oak *rustles* in the breeze. The daily duties of our short life *oppresses* us. Who is ignorant that the color of the famous Australian swans

are black? The actual number of stars that are visible without the aid of telescopes are less than may be supposed.

There are certain nouns called collective, which indicate an assemblage of persons, and in the use of which considerable liberty is allowed. The speaker, or writer, who employs them may consider them as singular or plural, according as the idea of the multitude, or the individuals which compose it, is most prominent in his mind; thus, *the army was victorious*, signifies that it was the army as a whole, while *the army were elated by the victory* indicates that each separate soldier felt joyful at the army's good fortune. Good taste alone can decide in such cases which is the better form, and taste is something which is really as necessary to neatness of style as to neatness of dress, and should be cultivated by every one.

WHEN WE SPEAK ON SUCH A MOMENTOUS AND MYSTERIOUS subject as the rapidity with which a woman can dress, we wish to be understood as referring only to women who live in England or America, in the suburbs, where dressing on the fly, to catch trains, is reduced to an art that is almost worthy the attention of athletic people whose performances shine according to records. When a woman first goes to the country, she misses many trains through her inability to dress in time for them. The only way she succeeds in perfecting herself in this line, is to dress for the eight o'clock train when she wishes to catch the ten. Then to dress for the eight o'clock train when she would away on the 9.30. Still again to dress for the eight o'clock train when she wishes to catch the nine; and so on until she develops championship form, and can dress for the eight o'clock train when she wants the eight o'clock train—and get it. By that time she is on an artistic and athletic level with a woman born and bred in the rural districts, where women don't dress for the love of the thing, or to make a display, but simply to be on time and catch things. A woman who occupies half an hour in dressing in the city will, after she has been in the country six months, be able to perform the same office, if necessary, in the brief period of six minutes. At the date of this writing, as far as can be ascertained, the record is 4.32¾. In fact, a country woman can dress so fast that it is believed by many statisticians—who have, however, been unable to satisfy themselves definitely—that the rural woman has found it necessary to resort to the expedient of making several garments into one to save time. For instance, it is believed that the dresses and undershirts are fastened together in such a way that they may all be donned at once, and fastened to the anatomy by a vital button warranted not to come off. It is furthermore believed that if this combination garment is not used, that her clothing is always left, on retiring at night, in a position in which it may be donned at the shortest kind of short notice—after the fashion of the garments of the rural fireman who, before retiring, leaves his clothing on a chair in layers, with those to go on first on top. When a woman in the rural district hears the door-bell ring, at say, four o'clock in the afternoon, and she has on an old wrapper, and is anything but presentable, she doesn't become in the least alarmed, but simply tells the maid to usher the caller into the parlor, and to say that she will be down in a few minutes. Then she flies upstairs, and by the time the caller is seated in the parlor, there

is a noise overhead, like that of a greyhound bounding through vistas of dry, brittle leaves, and the caller knows full well that it is a suburban woman getting into a silk dress against time, because she has done the same thing herself so frequently that there is no mistaking it. After the caller has left, the rural woman goes upstairs, where the dress-maker is engaged, and tries on several new dresses, as though they were hats. Then in two or three minutes she has on an entirely different garment, as a sudden change in the weather has made it necessary. When it comes to a question of full dress she can get ready in three minutes, for the simple reason that there is so much less to put on than on ordinary occasions. When she comes out of the surf in the summer, she dresses in such a brief period of time, that many city women argue and pretend to believe that she is a theatrical lightning-change artist in disguise. In case of a fire at night, she could arise and dress herself, as though for a wedding, even if the flames were at the other end of the room licking the varnish off the bedstead. And she would have on her hat, and her gloves buttoned up to her shoulder-blades, long before the firemen could get to the house. To look at this thing from a standpoint of economy, the fast dressing that is universal in the country is a very extravagant practice when the wear and tear of clothing is concerned; for an ordinary dress soon loses its graceful symmetry when a woman hauls it swiftly over her head like a horse-collar, and shoots out from the shoulder to get into the sleeves, and buttons it swiftly with a button-hook to cause her to shrink into a wasp-waisted sylph. Indeed, a bucolic woman can dress in half the time it would take her to wash the breakfast dishes or the baby; and she could probably dress twice in the period of time she would exhaust in sweeping a floor or dusting the furniture; and it is within the pale of reason to say that she could dress three times in as many minutes as it would take her to exhaust the subject of the latest fad, whether it be bifurcated shirts or amateur theatrical performances for the amelioration of the condition of the heathen in Zambesi. And it is entirely amusing to see her jump in a pre-occupied way, and begin to dress at a 4.52 rate of speed, to catch an express train, when she hears the meridian factory whistle agitate the quiet air.

THE 'POTTER-BELLEW SEASON.



T has not been usual in the conduct of this magazine to furnish its readers with dissertations on theatrical business, for the very simple reason that materials for a permanent record have not presented themselves hitherto. The wearers of the sock and buskin are proverbially irritable, and criticism in this county has to be tempered considerably to avoid unpleasantness, productive of no ultimate good. No doubt, a judicious distribution of praise to the good people who cater for our amusements is not only allowable, but even commendable, considering the risks run and the laudable end in view. Good intentions when unsupported by sterling merit would not, yet, justify the reproduction in these pages of the lavish eulogy that marks the theatrical notices of the daily press. Perhaps no great harm is done by these ephemeral reviews, but the readers of *The Indian Empire* will appreciate the wise reticence that has spared them the perusal of many columns of encomiums untruthful as undeserved. The advent of Mrs. Potter and Mr. Bellew has, however, given a different complexion to affairs, and has excited an amount of public attention that warrants a departure from the customary rule of silence. A detailed account of all the plays in which these artistes have appeared would, of course, be out of place here. It would convey no correct estimate of the qualifications of the players, and would also be unnecessarily discursive. But a careful summary, a complete picture, so to say, of the stage doings during the past month would in all probability prove acceptable to readers situated at a distance from the metropolis; and this I shall endeavour to supply.

In the first place the most notable fact brought out by the operations of Mrs. Potter and Mr. Bellew is, that high-class plays properly staged and dressed, and having for their principal parts "Stars" of a magnitude hitherto scarcely known in these regions, do not necessarily spell bankruptcy. That the experience is likely to bear fruit hereafter there is good reason to believe, and proposals have already been put forward for a theatrical campaign next cold weather, with attractions sufficient to fill the breasts of all play-goers with the liveliest anticipations of pleasure. How far expectations will be realised it would of course be unwise to predict at the present stage. Doubtless actors of great ability will be imported, and all that good stage appointments can do will be done; but the promoters of the scheme will make an initial mistake should they ignore the glamour of a great name, and all the peculiar qualities that give it its value. Now Mrs. Potter has all the essentials for success. She is known, at

least by reputation, wherever the English language is spoken or read, and she has in a high degree those inestimable qualifications, great personal attractions. In the walk of life that Mrs. Potter has elected to follow, beauty is a prime consideration. As Bruyere says, "how much wit, good nature, indulgence, how many good offices and civilities are required among friends to accomplish in some years what a lovely face or a fine hand does in a minute!" And Mrs. Potter is eminently beautiful. Of the medium height, slender and exquisitely proportioned, she has a face and figure that men milliners might adorn, and the laity adore. As I write I have before me half a dozen photographs of her as *Pauline*, as *La Tosca*, as *Juliet*, and the other characters she assumes; they differ in expression and pose; they have only one quality in common, youthful beauty; and not all the judicial calmness I can summon will enable me to decide which I like best. She is equally fascinating in every change of mood. Nor shall I attempt to analyse the features, for as soon could I convey an adequate impression of the beauty of moonlight to one born blind, as describe the large, lustrous eyes, the finely-moulded nose and delicate flexible mouth. Let it pass—I shall not harrow either my own or my readers' feelings with vain fancies.

Perhaps it may be considered that I lay too much stress on physical perfections which should give place to the intellect. To this proposition I cannot assent. The subject of this paper has the high mental attainments that would warrant my considering the moral before the physical powers; but I prefer to follow my own plan, for were she even other than she is, her face would appeal more eloquently than talent. All orators, we know, are dumb when beauty pleadeth. Proceeding then as I have commenced, I may next state that Mrs. Potter knows more than most of her sex how to enhance the charms nature has so plentifully given her. Much ridiculous nonsense has been written, by poets principally, about loveliness needing not the foreign aid of ornament, but is, when unadorned, adorned the most. Dress, as Lavater says, is a table of our contents, and Mrs. Potter knows how to dress to perfection. To those who insist on strict accuracy in costumes, it might possibly appear that not much scope is afforded for variety in the dresses on the modern stage. Times have changed considerably since Sir Walter Scott wrote,—“We have seen ‘Jane Shore’ acted, with Richard in the old English cloak; Lord Hastings in a full court dress, with his white rod like a Lord Chamberlain of the last reign, and Jane Shore and Alicia in stays and hoops. We have seen Miss Young act Zara, incased in whalebone, to an Osman dressed properly enough as a Turk, while Nerestan, a Christian Knight in the time of the crusades, strutted in the white uniform of the old French Guards!”; and few Macbeths would in these days dare to appear as Garrick did in a court suit of scarlet and gold lace with a wig, as Lee Lewes, the actor, says in his *Memoirs*, “as large as any now worn by the gravest of our Barons of the Exchequer.” Still there is ample scope for the gratification of individual taste, particularly in comedy. In historical plays where the date is fixed with some precision, the antiquarian costumer of course lays down the law, but in comedy where manners, more than particular men, are pictured, it would be absurd to follow the fashion

of any particular period. As a critic once wrote, the system of dress in vogue at the date of a play's first production should be disregarded according to the fluctuations of fashion. What should we think, he demanded, of a Lord Foffington now, dressed with a large full-bottomed wig, laced cravat, buttons as large as apples, or a Millament with a head dress four storeys high? Lord Foffington had descendants, and his likeness with certain changes of dress, might fairly pass for theirs for sometime. Mrs. Potter has endeavoured to observe historical accuracy, and yet to convey her own individuality to her costumes. On this subject she herself says:—"To be well dressed is to be suitably dressed—and to be suitably dressed, a woman must have a feeling of comfort in her clothes. There should be no tight sleeves or tight skirts to cramp or render ungraceful the movements of the body. But when fashion decrees that tight sleeves and glove-fitting bodices should be worn, no one can go contrary to the fashion, unless prepared to face the unpleasantness of being pointed out as an oddity. But as fashion really means a love of variety, every woman of artistic instincts can so arrange her gowns as to have each one characterized by individual taste and judgment. The choice of color depends on the country in which one lives. In these remarks I am not presuming to dictate, or even offering suggestions on how women should dress. I am simply giving the ideas which guide me in arranging my own costumes. I have thought out each dress beforehand, and know exactly what I want. I have made costume a special study, and possess a library that contains almost every work on costume that ever was published. In my theatrical wardrobe each costume in material and style has been made in accordance with the period to which it belongs. In the Elizabethan period rich velvets and brocades obtained favor; in the Georgian, whites and blues, pinks and greys were the prevailing colors, with a quantity of muslin trimming.

"It is sometimes difficult to obtain the exact accessories to a costume. Thus the Georgian hat I wear in the second act of David Garrick was not made until I had tried six other Georgian hats, all taken from pictures. When I commence my study of a new piece, if I happen to be in Paris I go through the Louvre in company with an artist, and study those pictures which coincide with the period of the play. In dressing such a character as Juliet, I have adopted a dress that reaches only to the feet, without any train, as the correct, everyday gown worn by a Veronese girl. In the debatable matter of corsets I offer no opinion. I have never worn any all my life, my mother having prejudice against them. My bodices are all thoroughly boned, and made to fit the figure. In boots and shoes I have voluntarily adopted low, flat heels, because they are most comfortable. My boot is made in a straight line on the make of the foot, with the curve on the outside. I contend that a high heel does not make the foot look smaller; it merely tilts it forward and throws it out of shape. At one time all my shoes were made with Louis Quinze heels, but after playing Cleopatra, I found sandals to give me such absolute comfort and rest, that seeing I could not wear sandals in the street, I took all my boots and shoes to the shoemaker and had the heels knocked off. Then I knew what it was to stand all day at rehearsals without feeling the slightest fatigue."

The chief objection, advanced by one of the daily papers is that

Mrs. Potter's voice is harsh and unsympathetic. That Mrs. Potter's voice is not as sweet-toned as her appearance would lead one at first sight to suppose, it would, of course, be folly to deny. We are creatures of habit, and departures from deep-rooted notions come at first with a shock. We are led by experience to expect, when we see a delicately-moulded woman, that her voice will be a pure soprano or mezzo-soprano, much as we expect rain when we see the clouds gather. If, however, instead of the shrill notes of anticipation the ruby lips emit a mannish voice, the dispersion of the illusion jars at first on the senses. But we are soon reconciled to circumstances, and may even learn to prefer the innovation to the old order of things. Now Mrs. Potter's voice is husky and perhaps more like a man's than a woman's, but that it is harsh or unsympathetic I emphatically deny. Were a low-toned voice necessarily unsympathetic or incapable of giving "those delicate *nuances*,"—I thank thee, Jew, for teaching me that word,—"of tone and inflection which indicate subtlety of observation and psychological insight, and which convey to a cultured audience so much more than the strong tones of passion used too indiscriminately," then it would be impossible for any male player to "indicate subtlety of observation and psychological insight." Mrs. Potter's voice is not of lower register than a man's. But the writer of the review is rather mixed in his ideas. He opens by saying that nature has denied the lady the gift of a sympathetic voice, and then descending from the general to the particular, he clinches his assertion by saying that Mrs. Potter shews in her voice "too much abruptness and too little gradation." What nature has to do with such artificialities as "too much abruptness and too little gradation," I do not, unfortunately, possess sufficient "subtlety of observation and psychological insight" to understand. Yet, considering the source whence the assertion proceeds, I may be permitted to express intense surprise that an attack should have been made, on the score of voice chiefly, on the lady who nightly charms larger audiences than have ever before been drawn in this city by any actor. It is only a year ago that Signor Majeroni was in our midst and showed us how the most delicate shades of thought and feeling could be satisfactorily depicted by mere dumb show. My readers will, no doubt, remember the old Corporal, Signor Majeroni's greatest impersonation; and how he, having lost his speech in the first act, gradually worked out his mission, passing through the whole gamut of human passion and suffering, without uttering a word. No question then of "delicate *nuances* of tone" and, if I remember rightly it was the writer of the article on Mrs. Potter who distinguished himself by his loudly-expressed admiration of Signor Majeroni. Possibly he may, if confronted with his former opinions, take refuge in the ridiculous assertion that dumb show is better than an "unsympathetic voice" which cannot indicate "subtlety of observation and psychological insight." *Credat Judæus Apella*—I reserve my own opinion.

The other defect noticed is "the further drawback of excessive self-consciousness. It may possibly be said that self-consciousness is essential to success in the histrionic art, and that the actor who loses himself, except momentarily, in his part, is in a fair way of losing the control necessary to just expression, and this, of course, is quite true. But self-consciousness in relation to the part one has

to play is one thing, and self-consciousness in relation to the audience, and to effects which have nothing to do with the play, is another; and it is a too palpable self-consciousness of the latter kind, or at all events the appearance of it, which seems to us to stand in the way of Mrs. Potter attaining the full measure of artistic success of which she is capable."

This is a masterly method of displaying ones own "psychological insight," and at the same time damning another with vague generalities. Nothing is advanced to support the charge of self-consciousness, but the indictment is used as a peg to hang theories as to what is and what is not permissible. The question was discussed ad nauseam some five or six years ago in the theatrical papers, and those who still feel interest in the subject may find what they want in "The Theatre" of 1885 or 1886 where Diderot's opinions formed the centre of a huge controversy. What I am at present concerned with is the refutation of the assertion that Mrs. Potter is self-conscious in relation to the audience, and that to a large extent "her faults are due to the conditions under which she has studied and practised her art, and to the immunity she has enjoyed from the stern discipline and rough-and-ready criticism which those who rise through the ranks of the profession have to undergo at the hands of the stage-manager." The two statements are incompatible. The capacity for entering so thoroughly into the spirit of any part as to lose consciousness of all save the immediate surroundings of the play is not the result of education. It is as much a divine gift as the poetical instinct, and all that training can do is to teach the alphabet of art, without which neither poet nor player could sufficiently express himself. The stern discipline without the divine afflatus may turn out a lay figure, but never a living, enduring creation. I do not by any means desire to convey by this the impression that Mrs. Potter has the inspiration that would place her in the first flight of actors. I am not sure that I could place her in any class which further experience may not show was too high or too low. At times she touches the highest ideal with an artlessness that is only the perfection of art, and yet she is guilty on some occasions of most servile adherence to absurd stage traditions. So far from stern discipline improving, I should say it would be the unmaking of Mrs. Potter's reputation. Where she succeeds, nature is her guide; where she fails, the "stern discipline" of the stage is responsible.

One of the wisest provisions of nature in this best of all worlds is the charming diversity of men's minds. We may accept, I think, the fact that Mrs. Potter has a great name in the theatrical world, and that her fame depends on certain peculiarities of manner and speech which distinguish her from her compeers. And here we have a writer who calls those peculiarities "mannerisms which might be dropped with great advantage." This is what he says. "Both her elocution and her action, too, are infected with some very marked mannerisms which might be dropped with great advantage. Among these, one of the most objectionable is an extraordinary habit of making rapid, mincing runs across the stage, which is rarely, if ever, called for. It is much to be regretted that experience has not taught Mrs. Potter the parts for which nature has marked her out, and that any illusion should lead her to essay rôles distinctly contradicted by her voice and temperament. Her natural tones and manner are

those proper to tragedy or melodrama, and are absolutely unsuited to light comedy; and of these tones and this manner she appears able to divest herself only by an excessive and too obvious effort, which lands her in the regions of farce or burlesque." The quotation is amusing in its absurdity. The writer would, evidently, have all women passed through a Procrustean bed of his own fashioning. Oh, unwise and slow of understanding, can you not imagine that it is possible that the great charm of womankind lies in the infinite changeable variety of nature's fairest daughters? The "rapid, mincing runs across the stage" which may not suit your heavy-boned, thick-ankled, Highland lassie, may yet have fascinations in Mrs. Potter that a more stately tread would lack. But this is as nothing to the other dogmatic absurdity that, because Mrs. Potter's voice is low, her "natural tones and manner are those proper to tragedy or melodrama." I have long looked for one of those who believed that tragedy should be enacted in a deep voice, and that the stage villain should let his evil nature be known at first sight. I have found him.

The space at my disposal compels me to close here. I do not, besides, care to go further into the subject. Knowing the fallibility of human reason, I have not attempted to pronounce judgment on Mrs. Potter; but I have reproduced all that has been said to her detriment, and by showing the obverse of the medal, I leave my readers to form their own opinion. Where centuries of study have only ratified the assertion that womankind is beyond our understanding, for no two are alike, how can I or another give a verdict on one of the most puzzling daughters of Eve?

APEX.

TOPICS OF THE MONTH.



ONE OF THE CHIEF POLITICAL EVENTS, OF WHICH NEWS HAS reached us this month, is the Government majority of 61 on Mr. Shaw Lefevre's proposal to settle the disputes on Plan of Campaign estates in Ireland by arbitration. The bare idea of settling any dispute by arbitration is an excellent and attractive one. When two men quarrel, everybody is always ready to recommend arbitration. But it is to be hoped that the British electionist will be led away by no such cry, but will learn from the facts why no Government could possibly have assented to the Shaw-Lefevre proposal; probably the chief object of that proposal was to make it in order that it should be defeated. A grand opportunity was thus opened for misrepresenting the odious and cruel Government which, to its other sins, had added the crime of refusing an offer of peace made by the friends of the tenants. Why, then, can there not be arbitration on these remaining Plan of Campaign estates? We shall summarise the reasons briefly:—(1) Because there is an excellent system of arbitration already in existence. There are the Land Courts established by Mr. Gladstone. Either directly or indirectly these Courts have fixed the rental of more than 300,000 farms, and fixed the rental at a ridiculously low figure, for the average of ten shillings and six pence per statute acre is extremely small. Every Plan of Campaign tenant either has a fair rent fixed, or has not. If he has, then he ought to carry out the arbitration to which he himself appealed. If he has not, let him, as he can without let or hindrance, use the arbitration provided for him by Parliament. Take, for example, the case of Lord Clanricarde. He does, it is true, absolutely nothing for his tenants, but then he does not rack-rent them. His rents are so low that most of his tenants are afraid to go into Court, for fear the Court, on fixing a fair rent, should be compelled to raise it. As a matter of fact arbitration is like Gladstonian Home Rule. It is asked for, and cheerfully accepted—but only as an instalment. Let the Clanricarde tenant whose rent has been arbitrated in Mr. Gladstone's Courts pay the rent there decided. Let the Clanricarde tenant, whose rent has not been settled there, take it there and hold his peace. Nothing can be more ridiculous than the way in which English Home Rulers talk as though every tenant had a sort of *priori* right to extra reductions. (2) Because the League forbids tenants to abide by the result of an arbitration. This, of course, is primarily true as we have shown in the Land Courts, but it is also true in other cases where other arbitration has been employed. (3) Because the Government has no business to help the Plan of Campaign leaders

out of the mess in which they are landed. There is this important fact to be borne in mind that of all Plan of Campaign estates, where the rent has been paid, not to the landlord but to gentlemen like Mr. William O'Brien, and where as a natural consequence, the tenants have been evicted, the National League has made itself solemnly responsible for the maintenance of those tenants. That game suited well enough while money was plentiful. The coffers of the League are nearly empty now, and are not being replenished as of yore, in consequence of the split. Consequently, the Plan is a costly folly, and is breaking down everywhere. The offer to arbitrate was made despairingly to cover a retreat. Had it been accepted, there would doubtless have been plenty of subsequent swagger that the Plan had saved tenants. Far better let the tenants see that the Plan was a cowardly and unsuccessful swindle. Let them desert it, and come to terms with their landlords.

WE HAVE TOUCHED, ELSEWHERE, UPON THE CAUSES THAT LEAD to strikes. Nationalism is a sign of the times. It is a protest against the prevailing industrial condition that has forced the small merchant and manufacturer out of business, and turned every avenue of human endeavour into the long lane turning only to gigantic co-operative combination. Competition, once the life of trade, has become the whip that drives the masses from the walks of individual endeavour to the common service of combined capital. The present condition of affairs is anomalous. Industrial competition separates individuals, while capital, the product of labor, obeys its fundamental law, and seeks itself. Universal barter cannot prevail under the law of trade that they who have the most can sell the cheapest. So long as the many sell to the few, the many, in turn, must buy of the few, and the accumulation of profit cannot be otherwise than in adverse ratio to its distribution. In the days of serfdom and feudalism the owners of the land, the source of all wealth, made no pretence of profit-sharing with its tillers. The product of their labor was the price of their very existence. But these conditions do not, now-a-days, apply. Nationalism has been embraced by many thousands of working men all over the civilized world as affording a solution of every evil through the revolution of existing conditions rather than through their reforms. There are hundreds of thousands who have never avowed their adherence to the cause, but yet who believe in its principles, and look forward to the triumph of those principles as the ultimate solution of the great problem of the present day. The growth of the movement in all parts of the world shows that the masses are ripe for change. The deepest thinkers of the day believe that society is in a transitory state, and that we are turning a new page in the history of the world's progress. The new movement is not sectional, for it extends all over the world. It appeals to no class, for it seeks the benefit of the followers of all trades and callings. The Nationalist's doctrine is, not that individual emulation should cease, but that the individual cannot compete against the individual under the present industrial system without disadvantage to the many, and the great waste of energy and material. The individual is not blamed for taking advantage of existing circumstances, and the accumulation of vast fortunes. It was upon the system that places in his hands that which should be dis-

tributed among the many. Industrial competition has grown so keen that even capital fears competition with itself, and recognizing, with the keen instinct of self-protection that in combination lies the only eventual safe-guard against the evils that have fattened it, seeks safety in the Trusts and Syndicates that form the most striking phenomena of the present age. The logical sequence of the present conditions must be, says Nationalism, the operation of all industries by 'the nation for the benefit of the people. It not only seeks to provide for each the highest return for his labor, but to secure for all the full benefit of the endeavours of the individual. There is a tendency amongst many to regard Nationalism as not wholly in accord with the masses, and it has been designated in trade-union circles, a 'kid-glove movement.' This is wholly erroneous. It cannot work out its destination on the narrow lines of trade-unionism, for its scope is universal, while the former reflects in a measure the very evils against which it contends. It aids no trade or class against a trade or class, but seeks to establish a unity of operation amongst all. Trade-unionism has had a mission, but its achievements have been of a negative rather than a positive character. It combats capital; resists; but it cannot advance. Nationalism seeks to combine with capital and apply it with benefit to all mankind. That the reforms advocated will ever be demanded by the people as nationalists is a question that time alone can decide. There are not two opinions regarding the awakening of mankind to the magnitude of the existing evils. The possibility of a remedy alone is questioned. In this direction it may be noted that the growth of nationalism during the past two years has been so great that it would be difficult to set the limit of its increase during the next decade. Whether or not it becomes the giant that its infancy promises, it will be a factor of no slight importance in moulding the social future.

THE ARCHDUKE FERDINAND D'ESTE, THE PRESENT HEIR APPARENT to the throne of Austria has lately taken steps to buy from the Swiss Government the ruins of the castle of Hapsburg. The young Archduke in so doing, is actuated chiefly by a desire to fulfil one of the last earthly wishes of Crown Prince Rudolph. The latter, a few months before his tragic death at Meyerling, undertook a trip to the Canton of Argau, under the strictest incognito, to visit the place where his illustrious ancestor, Rudolph I., founder of the House of Hapsburg and first Emperor of Austria, lived in the year 1250. The Prince was much impressed at the magnificent appearance of the ancient ruin, and in his heart he registered a vow to make the old place his own, and to restore it to its departed glory. But when, some days later, he offered a big sum for its purchase to the Republican Government of Switzerland, his advances were met with a curt and not over-polite refusal, and this jewel of the past is still in the hands of the Helvetian, like a broken eagle's nest in the grasp of a cowherd. It is stated that Archduke Ferdinand d'Este has been more lucky in his negotiations, and that the antique remains of Schloss Hapsburg will once more become the property of the descendants of Rudolph I. It is sad to think that the room once inhabited by their famous ancestor—the only apartment, by the way, yet in an almost perfect state of preservation—is now used as a drinking saloon. The rest of the spacious, but half-ruined chambers

and halls have been converted into stables for the cows and pigs. No wonder that when the Crown Prince visited Schloss Hapsburg, tears of mortification should have filled his eyes at the view of so unparalleled a piece of vandalism. Turning towards the old guardian of the place, who was showing him round, the Archduke inquired what use was now made of the North Tower, the highest of the four still remaining. "Oh, that's from where we signal fires," replied the man. "Indeed," murmured his Imperial Highness musingly. Then he added, with a sigh: "Yes, one can see far from there, but not far enough, however, to discover the fire which will one day consume Europe from one end to the other." The dull-witted Swiss gazed with some astonishment at the young man, whom he supposed to be some ordinary tourist, little thinking that the words he was unable to understand had just been pronounced by the descendant of the great Rudolph, whose name, which was so often on his lips, meant grand deeds and noble works, even to his limited intelligence.

THE NEWS OF THE DEATH OF MR. WINDOM, SECRETARY OF the United States Treasury, reached us too late for comment in our last issue. Reuter briefly reported the occurrence, and added that, shortly before his death, Mr. Windom had spoken in favor of Bimetallism and the unlimited coinage of silver by international agreement. This telegraphic announcement does not coincide with the latest accounts published in the American papers. For instance, shortly before his death, Mr. Windom had a conference with prominent New York Bankers, and although the meeting was of an informal character, and very little was accomplished in the way of business, the late Secretary and most of the gentlemen present fully expressed themselves as opposed to free coinage although all recognized the possibility of the passage of such an act unless action was taken to forestall it. The silver question in all its phases was freely discussed, and a proposition that met with general approval was that the Treasury Department should buy each month, in addition to the legal requirement of 4,500,000 ounces of silver, enough more to counteract the retirement of national bank notes amounting, all told, to about \$15,000,000, per annum. With regard to this conference, we are told by a prominent American daily paper that the conference demonstrated clearly that the policy of Secretary Windom was a conservative one, and that in this respect he was in perfect accord with the New York bankers. He recognized clearly the danger of wild silver inflation, and while he desired to give all the relief possible to the monetary situation, he did not propose to give it at the expense of the government credit. One fact that was recognized was that the United States currency is not of proportions sufficiently large to meet the requirements of business and industrial development. This is clearly recognized in the Treasury Department, and the problem of expansion,—an expansion that should be devoid of danger—is the problem that Secretary Windom and his associates set themselves to solve. And that it is one that must be solved before a perfect confidence in business and commercial circles is restored, goes without saying. Unfortunately Secretary Windom did not live long enough to witness the solution.

WE HAVE NO DESIRE TO ADD TO THE LITERATURE ALREADY PUBLISHED re the "Age of Consent" Bill. We said what we had to say in our

last issue. If anything could, however, strengthen the views previously expressed, it would be that "Monster Meeting" held on the Maidan on Wednesday last. The men of the Hindoo community met together to urge upon Government (under the plea of religion) that they were entitled to violate children. The collection was composed chiefly of office baboos, peons, coolies, interspersed with a few stump orators, who owed their education to English liberality. The sentiments expressed breathed loyalty to the British Raj, and the Baboos appealed to the Empress of India to aid them in perpetrating acts of which an Englishman would be ashamed. If reports of this meeting should find their way into English papers, they will do more to enlighten our English brethren as to the difficulties with which the Indian Government has to deal, than any amount of Exeter Hall bunkum and Digby-Hume-Ghose clap-trap,

WHENEVER A WOMAN ENTERS THE POLITICAL ARENA SHE sacrifices that charm of womanhood and delicacy of manner which cannot be kept pure under these coarse, contaminating influences. We do not assert that politics are, in every degree, degrading to women, but we do think they are not elevating, nor do we think that women wield the purifying influence at the polls that suffrage advocates claim. We have had a few instances of late in this country where native women have been pushed forward in political matters, and much capital has been made out of the fact by native papers. But we have not observed a single case, in the course of some years of observation, where, in England, the voice of women is felt as representative, either municipal or executive. The better class of women care little for the ballot or political honors, feeling that the hand that rules the cradle rules the world (we trust that the printer will not alter "rules" into "riles.") We feel that the mother who gives to her country half a dozen manly votes accomplishes more for her country's good than the woman who neglects home, children, and duties to voice the sentiments of women who never knew, nor can know, the meaning of motherhood, love, or home. While the influence of women suffrage is not degrading to men, yet we cannot learn that they are particularly purified by meeting mother, wife, or sister at the polls. We trust that the day is far distant when Indian women will seek to follow the example of their European and American sisters. We have had indications of late, that the native, although particularly careful in refusing to grant to his womenkind privileges which rightly belong to their sex, is not above making political capital out of the fact that a woman took a part in the recent Congress proceedings. There are but few men but privately feel a disgust at the thought of those they have always held up as emblems of purity, becoming contaminated with politics. The true woman asks not for political influence. She has had accorded to her equal rights in almost every other path of life; she may walk side by side with men in the battle of life. She may even outstrip him, as there is now no avenue unopen in Europe to the woman who wishes to enter the professional arena against her male competitor. But, after all is said and done, her natural yearning is for love and home, where the carols of babyhood are sung to the sweetest of babies, and where the weary husband may find rest, and aching hearts sympathy.

"THE WORLD IS GETTING SMALL." THERE IS A LOT TO THINK about in this one sentence. Everyone of common sense must see that there is one profession that must shortly die out ; the profession of the explorer ; and die out for the simple reason that there will be left no new regions to explore. The Dark Continent has had light thrown on it by such men as Livingstone and Stanley. Australia has been crossed from north to south, and has a line of telegraph wire stretching across it. The Wuntho State, of large extent, is one of the latest annexations of the British Flag. Here, undoubtedly there is a field for explorers, and more especially for prospectors. The press of Burma is already awakening to the fact that the immense latent resources of the country must shortly invite the attention of capitalists. One industry of Burma, and that a most important one, the petroleum industry, has hitherto been worked in a very primitive way, although it may be looked upon as one of the oldest industries of the country. In the Calcutta market, and elsewhere, Rangoon oil has long been known, and for centuries past there has been a steady supply. The first shipment of oil from Burma dates back to 1853, and the export has gradually increased. But there can be no question that the outturn at the present day could be doubled, with the help of experts and modern appliances. About 1878 Mr. Savage was successful in obtaining a good flow of oil, at a depth of 66 feet from the surface, in two wells, and he procured, after the first rush, about 250 gallons a day. Now this, it must be remembered, was with shallow boring ; and to say the least, it would be surely worth while to try all the oil-producing tracks of Burma with deeper borings, as cases have occurred in America where, after the first rush of oil had escaped and the bore had been continued down, a more abundant supply has been tapped. That large fortunes have been made in oil is pretty generally known. In fact the announcement made by anyone that he has "struck oil" is equivalent to saying that he has made his fortune ; and when the Burma oil fields get properly opened up, it is to be hoped that some of the enterprising speculators will, really and metaphorically, "strike oil."

THIS EVENING THE CALCUTTA NAVAL VOLUNTEERS WERE inspected by the General Commanding the Presidency Division. In his speech, Lord Frankfort de Montmorency summed up the capabilities of the Corps. He said that on occasions of inspection of Volunteer Corps, the officer who conducts the inspection was inclined to say soft things. "But I am not going to soft sawder you ; for what I am about to tell you is nothing but what you deserve. I have been tremendously pleased with all that I have witnessed this afternoon. In inspecting your dress and your arms and accoutrements I was particularly careful, and I can honestly congratulate you upon those branches of the inspection. As to your gun drill on board your launch, and your performance with the guns on shore, all that I can say is that I was surprised at the thorough efficiency you displayed. You have acquitted yourselves excellently, and my inspection of you has given me as much pleasure as your efficiency has surprised me. I am told that many of those of you who are serving in the ranks of the corps are in command of ships, and direct large bodies of men, and it speaks well of your rule that

you, in your turn, submit to being commanded for the service of your country, and to me this is the most gratifying feature of my acquaintance with you on this, my first inspection of your corps. I have been particularly struck with the spirit of "go" which has animated you. You meant work, and because you were Englishmen I was glad to notice this spirit in you. I am glad to see that among us, Englishmen, there is no such thing as conscription, and when we consider the immense armies which other countries, where the system prevails, are able to turn out, it behoves every one of us to do something for the old country, if, in no other way, as efficient Volunteers, ready, if occasion should ever arise, to assist the regular troops in the defence of the honor and prestige of the land to which we are proud to belong. I am indeed glad to hear from your popular Commandant that every member of the corps is an efficient. Whatever the cause, the fact remains that you are a body of thoroughly-drilled men, and while this efficiency materially affects your funds, it also very considerably enhances your value as a pillar of strength to the Empire. I heartily congratulate you on your record, and trust that the reputation which you have earned during the past year will be maintained, if it cannot be increased, during the coming twelve months. Your Commandant applied to me some time ago for a Naval Instructor. I strongly recommended the application to Government, but I have not yet heard what has been the fate of my recommendation. A Commission is about to consider the claims of Volunteering in this country, and I have no doubt that it will do much for the Volunteer movement; but I would ask you not to expect too much from it. I feel sure that the spirit of British loyalty will still animate the people of the Queen in this country, and that the Volunteers in India will continue to strive to do their duty to the old country. Captain Petley, I congratulate you upon the splendid body of men which you command; and men of the Calcutta Naval Volunteers, I am proud to have had the opportunity of inspecting such a body of men."

CALCUTTA, 28th February.

APEX.

THE INDIAN EMPIRE.

VOL. III, No. 6.—APRIL 1891.

BIRTH OF THE LIFE GERM.



THE scope of evolutionists at present seems to be limited to tracing the growth of the higher forms of life from the lowest known organisms. The birth of life itself is admitted to be still a primordial mystery. The change in process of time of the inorganic world to the organic world is not contested. It implies that there was a time when the world was entirely inorganic—and that subsequently it ceased to be so. How then came the first germ of life? "In a meteor," some one answers. It merely transfers the difficulty to another planet.

The only difference between the two orders of nature, at the inception of organic life, in the words of Herbert Spencer, was that "a primitive mass of organic matter was like a mass of inorganic matter in respect of its passivity, and differed only in respect of its greater changeableness." Mr. Spencer gives no hint as to the nature of the occasioning cause of "greater changeableness." Were this agency discovered, it would mean the solution of the problem of life origin.

Mr. Spencer continues (*Factors of Organic Evolution*):—"The instability of the homogeneous is a universal principle. In all cases the homogeneous tends to pass to the heterogeneous—and the less heterogeneous to the more heterogeneous. In the primordial units of protoplasm the steps with which evolution commenced must have been the passage from a state of complete likeness throughout the mass to a state in which there existed some unlikeness, through the different exposure of its parts to incident forces. What incident forces? Those of its medium or environment. Which were the parts thus differently exposed? Necessarily the outside and the inside. Inevitably, then, alike in the organic aggregate and the inorganic aggregate"

"the first fall from homogeneity to heterogeneity must always have been the differentiation of the external surface from the internal contents. . . . The direct action of the medium was the "primordial factor of organic evolution."

Why of organic evolution? since Mr. Spencer is at pains to prove that this agency was the primordial factor of evolution in general. The position here assumed by Mr. Spencer appears to me untenable. For it may be asked—if the action of its environment on the "organic aggregate" constituted the primordial factor of evolution, then must we call the prior agency that caused a portion of inorganic matter to differentiate into the "organic aggregate" an ante-primordial factor? And, again, if this position be abandoned in favor of the hypothesis that the differentiation from inorganic to organic was caused by the action of the environment, and by implication that organic matter, having been the product of evolution, was necessarily heterogeneous at birth—the "*homogeneous organic aggregate*" becomes an impossibility.

It must be conceded that, in declaring organic matter to have by minute modifications differentiated from inorganic matter, Mr. Spencer has made a legitimate use of the knowledge of this post-Darwinian age, but the result, it must be remembered, has been to provide us with a hypothesis of organic evolution—not a law. Had Mr. Spencer, however vaguely, indicated a possible causation that led a portion of cosmic matter (necessarily inorganic) when becoming heterogeneous to deviate into organic grooves, he would have carried our knowledge of incipient life out of the shadow-land of hypothesis into the domain of law.

Mr. Spencer has drawn attention to the fact that certain experiments had conclusively proved that oxygen, in combination with light, destroyed protoplasmic matter, as explaining the *modus operandi* of nature in the formation of a skin. Mr. Spencer justly asks what would be the effect of a mass of protoplasms being subjected to the joint action of oxygen and light. Would not the outer layer of protoplasms be destroyed, *i.e.*, changed as such, and the protoplasms within the mass remain unchanged? In other words, the mass of protoplasms would become an organic entity, having an outside, or skin, and an inside. I want to carry the solvent action of this dual influence still further, and make it bear on certain conditions of inorganic matter at a period before the evolution of organic matter. At that stage of world-growth, when cosmic matter was passing into incipient heterogeneity, an important separation of processes took place: changes on the top of the earth, in which light was a factor, and changes within the crust of the earth, under conditions of total darkness. Confining ourselves to the latter class of phenomena when any of the solids and liquids (especially the latter) evolved in tenebrious environs, were brought by geological causes under sub-aerial influences, *i.e.*, under the combined action of oxygen and light, important modifications were likely to follow. In the cases of such liquid masses, if the changes in their exposed surfaces had involved either opacity (impermeability to light) or density (impermeability to oxygen), the potent dual action under notice would have naturally ceased to operate below that dense or opaque film or skin. This rather simple process would in some cases have led to very complex and interesting results.

I mean in those cases where the nature of the protected fluid was such as to be capable of assimilating or destroying the metamorphosed surface, *i.e.*, skin. The latter, although safe from outside influences, such as the combined action of oxygen and light, would be in danger of disappearing by internal counteraction. Thus a continuous process of destruction of the skin by internal causes, and renewal of the same by external causes, a warring between the inside and the outside, would be established. The entity of each mass or particle thus affected would continue in unstable equilibrium. The point of statical stability violently oscillating between these virtually centripetal and centrifugal forces would necessarily not only herald in novel changes, but confer an aptitude for still greater changeableness. In following the lines thus indicated, I believe will be found the germ of organic life; the evolution of a protoplasm.

P. A. PERROUX.

THE MARQUIS OF DALHOUSIE.

(A POLITICAL STUDY.)

PART II.



S I have already mentioned in the previous article, when the Marquis of Dalhousie landed in Calcutta and took over the reins of Government from Lord Hardinge, not a cloud darkened the political horizon of India, and there was a consensus of opinion that, for some time at least, peace was secured to the country. Under the circumstances, the new Governor-General recognised the wisdom of his predecessor's project of establishing a firm Native Government in the Punjab, but stern facts very shortly belied those predictions. Three months of the new regime had barely passed when a tragedy occurred, almost at the extreme end of the Punjab, which once more involved us in a war with the Khalsa power, resulting in the conquest of that Province. Unknown to the British Government, twelve hundred miles away, combustible materials were accumulating at Lahore and other centres of the Sikh confederacy, which only wanted a spark to set them on fire ; and the spark was shortly forthcoming. After the arrangements made by Lord Hardinge for the administration of the Punjab during the minority of Prince Dhuleep Singh had been completed, a call was made upon the Dewan Mulraj, the powerful Governor of the stronghold of Multan, to render an account of his stewardship. The wily chief preferred the alternative of resigning to giving up his accounts. It should here be remarked that he combined in himself an administrator and trader, and, for obvious reasons, he preferred the former choice. Two very popular officers, Mr. Vans Agnew, a member of the Civil Service, and Lieutenant Anderson, were commissioned by Sir Henry Lawrence, then English Resident at Lahore, to take charge of the government and fortress of Multan, and place on the *guddee* the new Sikh whom he had appointed. After the fortress had been given up on the 19th April 1848, the two officers, accompanied by a nominal escort, were returning to their camp when a fanatical soldier rushed at Vans Agnew and stabbed him on the shoulder : at the same time Anderson was cut down. The bleeding officers were, after some difficulty, carried by their guard to a distant mosque. Despite his wounds, Vans Agnew dictated two letters, one to the Resident at Lahore and the other to the Commissioner at Bannu, who was a hundred miles away, detailing what had happened, and asking for immediate assistance. Before the letters could reach their destinations, the guns from the ramparts of Multan opened fire on the mosque. After it had been dismantled, an infuriated mob from the city rushed in, and there saw a sight which, for coolness and indomitable pluck, has seldom been repeated

in the history of the world: Vans Agnew sitting quiet and composed on a *khât* (native bedstead) holding Anderson's hands, both awaiting their end with fortitude. For a moment the cowardly assailants were bewildered and did not know how to act, till a low-caste native ran into the room and hacked off their heads. "We are not the last of the English," was the dying exclamation of that brave young Englishman. Sir Frederick Currie, who was then Resident at Lahore—Sir Henry Lawrence having taken sick-furlough to Europe—asked the Commander-in-Chief to advance with troops from Ferozepoor to Multan to avenge the death of the British representatives. But he represented that to move with a force at that season of the year across two hundred miles of burning sand was fraught with danger to the men, and consequently inexpedient. Lord Dalhousie, new to his office, and upwards of a thousand miles from Lahore, failed to see the necessity of the case, and acquiesced in Lord Gough's decision. What a terrible mistake was here committed, subsequent events showed beyond the shadow of a doubt. The appeal made by Vans Agnew to the Commissioner of Bannu fell into the hands of Lieutenant II. Edwardes (afterwards Sir Herbert Edwardes), who has left a name for determination and bull-dog courage unsurpassed in the history of India. He was holding his Court at Dehra-Futeli-Khan, and seeing that the bag which contained the appeal was addressed in Persian thus—"To General Cortland in Bannu, or wherever else he may be"—he realized the situation at a glance, and opened the letter. 'Now or never' was his motto, and he acted up to it with promptitude. With a force of only 400 men, composed of the District escort, he started for Multan, and met Mulraj on the way at the head of 4,000 men and eight heavy guns. "I am like a terrier, barking at a tiger," he wrote from the scene of operations. Whatever other people may think of this—temerity or foolhardiness—it is certain he rendered yeoman service to his country. Not being satisfied with merely barking at the tiger, he called to his aid levies from the adjoining Mahomedan State of Bahawalpore, and won two pitched battles in June and July following, compelling Mulraj to seek shelter behind the walls of Multan. But the Commander-in-Chief was still obdurate, and it is difficult to say how the affair would have been terminated had it not then come to the knowledge of Sir Frederick Currie that the whole of the Punjab was seething with revolt, and that any further delay would be dangerous. He sent forward a small relief force to Edwardes, to which Lord Gough added a siege train and column from Ferozepoor. These forces would have been sufficient to reduce the fort, had not treachery and defection appeared in our small camp and thinned our ranks. One by one our so-called allies left us and went over to the enemy. The heroic young Edwardes was thus compelled to raise the siege and draw the troops under him to a safe distance, out of the range of the heavy artillery which bristled from the defences of Multan. Lord Dalhousie, with an eagle's ken, discovered that the military authorities were merely playing with time, and that any further procrastination would terminate in a disaster. It was then he wrote to the Secret Committee of the Court of Directors: "There is no other course open to us but to prepare for a general Punjab war, and ultimately to occupy the country." Once the determination was formed after deliberate

thought, Dalhousie was the man to carry it out; there was no mincing matters with him. He resolutely ordered a further addition to the army in the Punjab of 17,000, from the Sind and Bombay command. Apprehensive lest a mistake might be committed in regard to the carrying out his instructions, he resolved to start immediately for the frontier. Just before his departure a military ball was given at Barrackpore, at which he was present, and, in the course of a speech he made on the occasion, the following memorable passage occurs: "I have offered them peace, but in return they want war; well, they shall have war, and they shall have it with a vengeance." Twenty thousand men and 100 guns started on the expedition. Then followed the sanguinary conflict at Ramnugger (in which the cavalry made a tremendous blunder) and the doubtful battle of Saddullapoor. Meantime the Bombay contingent advanced on Multan, and, on the 26th December, they were before that city. The attack commenced next day. On the 2nd January 1849, the city fell into the hands of the British, and, on the 22nd, the citadel capitulated. The boastful traitor, Mulraj, surrendered himself unconditionally to the English camp, while the troops were covering themselves with glory. Lord Gough was engaged with the main body of Sikhs successively at Chillianwalla. The former may be said to have been a drawn battle, but the crowning victory of Gujerat may be said to have settled the fate of the Panjab, which henceforward passed to an alien rule. The subsequent operations conducted by General Gilbert, who drove the Afghans beyond the Khyber and received the submission of the entire Khalsa army at Rawalpindi, on the 12th of March, were subsidiary affairs. The difficulty that now remained to be solved was the manner in which the conquered province was to be dealt with. The victory of Sobraon* left the question of annexation entirely in the hands of Lord Hardinge;

* I take the liberty of appending a short notice of that battle. The carnage there was hardly surpassed by that on the heights of Alburna, so vividly described by Sir William Napier in his *History of the Peninsular War*:—The general plan of attack was in three divisions, on three points, by Generals Dick, Gilbert, and Smith. That of Sir Robert Dick, K.C.B. (a very old officer, who served with the 78th Highlanders in Sicily, and led the Black Watch at Waterloo after Macara fell), charging home with the bayonet, cleared the ditch and mounted the rampart. The enemy perceiving that this was to be the chief point of assault, slackened the defence of their works elsewhere, and concentrated their guns upon it. Fresh regiments rushed on to succour Dick, who here received a mortal wound, but they were checked and staggered by the terrible resistance they encountered. The other two divisions were then ordered to press on. The enemy no sooner perceived this than they rushed back to the posts they had quitted, and from every foot of the ramparts they poured a withering fire of all arms; but the most remarkable occurrence of the day was the charge of General Gilbert's division on the centre; his troops were repeatedly driven back, but returning to the assault over their own fallen, by the most indomitable courage they carried the works, with the loss of 689 killed and wounded. The defences were stormed on three points. Tez Singh was among the first to fly, and, either by accident or design, the bridge was broken down after he had safely crossed it. Pressed on three sides into a disordered mass, the valiant Sikhs still continued to dispute every inch of the ground till they were hurled upon the bridge, and preferring slaughter to yielding, plunged widely into the stream, which, having risen in the night, flooded the ford by which they had hoped to cross, so the current swept them away by hundreds. As they rushed to the broken bridge, our Cavalry cut them down like ripened grain, while flights of roaring rockets and showers of vertical grape blew their heads off, or tore their bodies to pieces, and the carnage, it was said, was horrible for human hand to inflict and human eyes to witness. But what would it have been with us had we been defeated? In addition to those who perished in the river, hundreds lay dead and mangled on the bridge, till the crushing of round shot and the explosive shells rent the pontoon itself to pieces, and then its ruins, with the dead, the dying and the drowning, were all swept away by the stream, which was crimsoned with blood.

but it was the weakness of this grand old soldier, who did not possess any political foresight, nor did he look below the surface of things, that he ruled according to the traditions of Indian policy, without taking upon himself the actual administration. How this half-hearted system broke down under the stroke of adverse circumstances, intrigue, conspiracy and rebellion, we need not stop here to enquire; it is a matter of history. At this juncture Dalhousie had for his advisers the two Lawrences—Sir Henry, who had cancelled his furlough on the opening of the second Sikh campaign and returned post-haste to India, and John, afterwards Lord Lawrence. The former halted between the belief that annexation may perhaps be justified, "but that it would be inexpedient." His brother was, however, of a different opinion, for although opposed to annexation as a general principle, he had no doubt that, in the present case, it was advisable. This difference in the views of two officials, who were considered, and very rightly too, among the best men in the military and civil service, for a time caused great anxiety to the Governor-General; but it did not take him long to make up his mind on the subject. In his despatch to the Court of Directors, he wrote:—"I cordially assented to the policy which determined to avoid the annexation of these territories on a former occasion. I assented to the principle that the Government of India ought not to desire to add further to its territories, and I adhere to that opinion still." But the force of circumstances convinced him that "there never will be peace in the Punjab as long as its people are allowed to retain the means and the opportunity of making war. There never can be now any guarantee for the tranquillity of India, until we shall have effected the entire subjection of the Sikh people, and destroyed its power as an independent nation." He saw clearly, schooled as he was in the arena of English statesmanship, that, "by maintaining the pageant of a throne, we should have just enough of sovereignty to keep alive among the Sikhs the memory of their nationality, and to serve as a nucleus for constant intrigue. We should have all the labour, all the anxiety, all the responsibility, which would attach to the territories if they were actually made our own; while we should not reap the corresponding benefits of increase of revenue and acknowledged possession." This was a painful incident to face, and to his credit it must be said, he faced it like a man. With the disappearance of native supremacy in the Punjab, the shadow of sovereignty represented in the nominal Prince, Dhuleep Singh, must also go the same way. In writing about this he says, "When I am fairly convinced that the safety of our own states requires us to enforce subjection of the Sikh nation, I cannot abandon that necessary measure, merely because the effectual subjection of the nation involves in itself the deposition of their Prince. I cannot permit myself to be turned aside from fulfilling the duty which I owe to the security and prosperity of millions of British subjects, by a feeling of misplaced and mistimed compassion for the fate of a child." That this was his honest opinion appears from the following:—"While deeply sensible of the responsibility I have assumed," he writes a little further on, "I have an undoubting conviction of the expediency, the justice, and the necessity of my act. What I have done I have done with a clear conscience, and in the honest belief that it was imperatively demanded of me by my duty to the State." The young Dhuleep

was allowed a pension of £50,000 a year, and permitted to hold the titular dignity of 'prince.'

The Land of the Five Rivers having thus been annexed, the next question was, what form its administration should take? Sir Charles Napier, who had just been made Commander-in-Chief in succession to Lord Gough, and who had only six years before set up a military system in Sindh, was in favor of that mode of government while on the other hand the civilian members of the Governor-General's Council believed that martial rule was a bad rule for a British Province, and their ideal of government was a regular civil administration." Dalhousie, however, would not depend solely on the one or the other, so he struck a middle course for himself, and he formed an administration composed in equal proportions of the military and civil element. But a difficulty here presented itself. Hitherto—that is, since the first Sikh War—the three brothers Lawrence commanded the patronage of the Punjab. John was placed in charge of the Eastern Districts, George held the Western tract, and Henry ruled over the Central districts. To a vigorous mind like that of Dalhousie, this appeared to be an anomaly, and he resolved to break up the family arrangement. Under Lord Hardinge the brothers were all in all and their voice was the law; but a tide had set in, and, while retaining them in places of responsibility and trust, Dalhousie had resolved that, instead of being dictated to by them, he would dictate to them; and it was not long before a friction was threatened. Henry, who was endowed with a "sensitive personality," did not relish the idea of clanging the chains in the hearing of the captives, and was in favor of conciliatory measures. So, when he drafted out a proclamation to the Sikhs, under the instructions of Lord Dalhousie, the latter did not approve of it, for it was drawn up in a sense different from what he had prescribed. And, instead of going about the bush to convince his Lieutenant that he was wrong, he went straight to the point, and addressed the following characteristic letter to him, which for outspokenness has rarely been excelled in a like production. He said:—

In my conversation with you a few days ago, I took occasion to say to you that my mode of conducting public business in the administration with which I am entrusted, and especially with the confidential servants of the Government is to speak with perfect openness, without any reserve, and plainly to tell my mind without disguise or mincing of words. In pursuance of that system, I now remark on the proclamation you have proposed. It is objectionable in matter because, from the terms in which it is worded, it is calculated to convey to those who are engaged in this shameful war, an expectation of much more favorable terms, much more expended immunity, from punishment, than I consider myself in granting them: It is objectionable in manner, because (unintentionally, no doubt) its whole tone substitutes you, personally, as the Resident at Lahore, for the Government which you represent. It is calculated to raise the inference that a new state of things is arising, that the fact of your arrival with a desire to bring peace to the Punjab is likely to affect the warlike measures of the Government, and that you are come as a peacemaker for the Sikhs, as standing between them and the Government. This cannot be. . . . There must be entire identity between the Government and its agent, whoever he is. . . . I can allow nothing to be said or done which should induce the nation to believe that the policy of the Government of India, or its intentions, depend on your presence as Resident in the Punjab, or the presence of Sir F. Currie instead.

Here was a man who was resolved to stamp everything done in his name with his own personal individuality, even at the risk of losing the services of an able and experienced servant. A

less powerful Governor-General, or even Lord Hardinge, "with something almost feminine in his tenderness of nature," would have precipitated matters and brought on further complications. This single incident, even in the absence of others, where the Governor-General made his authority felt, would show how unfounded was the belief at the time, given vent to by Sir Charles Napier in the following laconic sentence, "that the Lawrences have been forced upon Lord Dalhousie," whereas the truth was that it was Lord Dalhousie who forced his master-will upon the "Lawrences." But John Lawrence was made of sterner stuff than his brother. Henry accepted the inevitable without a murmur, and when asked by his chief, "What is to be done with the Punjab now?" he divined his intentions and gave the laconic reply, "Annex it now." For the next four years that Sir Henry remained in the Punjab he implicitly subserved his will to that of the Governor-General. The administration of the newly-acquired territories was entrusted to the hands of a Board composed of the two Lawrences and Mr. Charles Creville Mansel. To the last-named was confided the task of organising its judicial administration, which he did smoothly and effectively; John Lawrence concerned himself with revenue affairs, in which he was an adept, and Henry "was charged" with the military defence and our relations towards the lately-subdued chiefs and Sikh fief-holders." He was, in addition, made President of the Board. Sir Charles Napier who could never brook opposition, right or wrong, petulantly remarked:—"Boards rarely have any talent, and that of the Punjab offers no exception to the rule." But that the one devised by Dalhousie did its work swiftly and efficiently future events showed to demonstration. The Province was divided into small districts superintended by an English head with European and native subordinates. Of the civil and military arrangements made for the conduct of peaceful Government a well-known writer thus adds his testimony: "A wall of steel and stone was . . . raised between the British territories and the wild Pathan tribes and Afghanistan. The internal peace of the Province was, at the same time, secured by a military police of horse and foot with a separate detective force, under the British District Magistrates, making a total police force of 11,000 men. The old village watch was retained in addition, and its responsibility for tracking criminals from hamlet to hamlet was insisted on. The warlike instincts of the population were repressed by a general disarmament, the Peshawar valley and the frontier districts being, however, allowed to retain their weapons. The rest of the Punjab was sternly disarmed, and no fewer than 120,000 matchlocks, swords, daggers, and murderous implements of ancient curious kinds were delivered up through the village heads and the town police." The Sikh army melted away and re-appeared in civil life, but the flower of the fighting men enlisted in native regiments, or were incorporated with the Military Police. The chiefs and fief-holders, whose lands were confiscated and their power for mischief broken, had, nevertheless, subsistence allowances granted to them and nothing more, since their services were not required for military operations, this being the condition under which they received grants of lands from the rulers of the Punjab. These men were so well satisfied with the new arrangements that

John Lawrence, writing to the Governor-General observed, "they have given much satisfaction, and have exceeded all expectation. A Sikh Sirdar remarked to me that they had got more than Ranjeet Singh ever would have given them, and that, too, free of all service." Thus was raised a bulwark against a foreign invasion and a tower of strength to our Government. For in the darkest days of the Indian Meeting, when the existence of the British power in the East trembled in the balance, it was the Punjab that nobly responded to the call for help, and from being an uncompromising foe became the saviour of India.

However much opinion may be divided in regard to Dalhousie's policy towards the Punjab, there is no doubt that the second Burmese War and the subsequent conquest of Lower Burma was forced upon him by the arrogance and self-conceit of the barbarous ruler of that country. The simple fact is that the campaign of 1826 failed to bring to reason 'The Elder Brother of China' and 'The Lord who is the greatest of kings'; and although he was taught a lesson by which the English might have gained a large extension of territory, they let slip the opportunity, and were contented with the patched-up treaty of Yandabu, which permitted British merchants to settle at Rangoon and carry on their peaceful avocations. A British resident was appointed to Ava with the object of maintaining the treaty and protecting a strip of land on the eastern shores of the Bay of Bengal, which the above-mentioned treaty had secured to the English. But the haughty character of the Emperor, who was governed alternately by unscrupulous courtiers and the women of his harem, rendered his presence in his sacred metropolis irksome. Things, however, went on fairly well, till a change of dynasty, eleven years afterwards, when matters again reached a crisis. The "successful usurper" joined the previous reigning family, and, in the plenitude of his power, offered insults to the British Resident, who ultimately had to quit his Court and remove to Rangoon, and, in 1840, he had to be removed altogether from the territories of the Emperor. But this did not satisfy the latter or the miserable crew that were the keepers of his conscience. Here to there were troubles in store for the foreigners. They were left to the mercy of harpies and mercenaries, who lived upon the fat of the land. The British merchants endured these hardships for eleven long years, till their forbearance was exhausted, and in 1857 they addressed a memorial to the Governor-General detailing the wrongs they had suffered. I cannot do better than quote the words of Sir William Hunter. He says:—

Besides individual acts of oppression, they complained that the treaty of Yandabu was habitually violated, and that now affairs have arrived at such a crisis that, unless protected, your memorialists will be obliged to leave the country, and in doing so, must sacrifice their property. Neither life nor property is safe, as the Governor of Rangoon, they declare, has publicly stated to his dependents that he has no money to pay them for their services; and has granted to them his permission to rob the inhabitants, and to get money as they best can. In conclusion, that your memorialists are here under the provisions of the Treaty of Yandabu, and beg to state, with all due deference and respect, that they claim to seek your protection.

Dalhousie was not the man to submit tamely to such indignities, but he tried his best to bring about an amicable settlement without a resort to arms. All his endeavours, however, were of no avail, and the only alternative was a second Burmese War. The Governor-General

reluctantly accepted the position, for he would have easily been satisfied if his moderate demands to pay down Rs. 9,000, the actual losses sustained by the English merchants, as also the dismissal of the Burmese Governor of Rangoon, who had directly been the cause of all the mischief. The lesson of 1826 was not lost upon Dalhousie: he saw at a glance that the casualties in that campaign were due more to a malarial climate, and the exposure to sun and rain, than the fighting capacity of the enemy. He therefore personally directed the preparations, and the results justified his foresight. To quote General Goodwin, who had been charged with the command of the expedition, "The care and provision which has been made to enable us to meet the weather is parental. There are to be bake-houses and a constant supply of fresh meat, hospitals at Amherst to relieve me, and arrangements to carry the sick thither." Of course, under such circumstances, there could have been but one termination to the hostilities; and after a stout resistance at the great temple-citadel of Rangoon, the British forces advanced into the interior and occupied Prome. The royal capital, Ava, now lay at the mercy of Dalhousie, but he did not choose to press his conquest, and advocated moderation, although the Secret Committee of the Court of Directors "had declared for this extreme course, in the event of the Emperor not having accepted the terms already offered to him." In reference to this matter, he mentioned in a private letter that "to march to Ava will give no peace unless the army remain at Ava; in other words, unless we absorb the whole Burmese Empire." With a prophetic insight he added, "that necessity may come some day. I sincerely hope it will not come in my day." He was satisfied with what had already been done, and on the 20th December 1852, he issued a proclamation* annexing Lower Burma to the British conquests in the East.

* For terveness, vigour of style, and haughty defiance, the following production from the pen of the Governor-General is matchless. It is pervaded by Dalhousie's spirit all over:—

"The Court of Ava having refused to make amends for the injuries and insults which British subjects had suffered at the hands of its servants, the Governor-General of India in Council resolved to exact reparation by force of arms.

"The forts and cities upon the coasts were forthwith attacked and captured. The Burman forces have been dispersed wherever they have been met, and the Province of Pegu is now in occupation of British troops.

"The just and moderate demands of the Government of India have been rejected by the king. The ample opportunity that has been offered him for repairing the injury that was done, has been disregarded; and the line of submission, which alone could have been effectual to prevent the dismemberment of his kingdom, is still withheld.

"Wherefore in compensation for the past, and for better security in the future, the Governor-General in Council has resolved, and hereby proclaims that the Province of Pegu is now, and shall be henceforth, a portion of the British territories in the East.

"Such Burman troops as still remain within the Province shall be driven out. Civil government shall immediately be established, and officers shall be appointed to administer the affairs of the several districts

"The Governor-General in Council, having exacted the reparation he deems sufficient, desires no further conquest in Burma, and is willing to consent that hostilities should cease.

"But if the King of Ava shall fail to renew his former relations of friendship with the British Government, and if he shall recklessly seek to dispute its quiet possession of the province it has now declared to be its own, the Governor-General in Council will again put forth the power he holds, and will visit with full retribution aggressions which, if they be persisted in, must, of necessity, lead to the total subversion of the Burmah State, and to the ruin and exile of the king and his race."

A TRIP ROUND AND ABOUT PARISHNATH HILL.



ACK Rainford and I were both convalescent, that is, we had just got over a very serious attack of malaria fever. Such being the case, we determined to get rid of our persistent enemy by taking a change, and the question arose, Where shall we go? With only a fortnight's leave, we came to the conclusion that we could not profitably spend the greater portion of that time in a railway carriage by travelling up to some far-distant Elysium, such as Simla or Mussoori. But the question was settled by an invitation from Charlie Veering, Manager of the Baragunda Copper Mines, and his charming wife, to spend a week or so at his place. He promised us plenty of shooting in the way of bears, leopards and small game, and hinted that Rs. 500 might be made by potting a man-eating tiger. Also by way of variety, he mentioned wild elephants and, I think, zebras; but Charlie was noted for drawing the long-bow. From great experience of this failing, we mathematically tested his veracity by deducting 99½ per cent. of what he said when he was very much in earnest, and 98 per cent. when otherwise. Knowing something of the Parishnath Hill ourselves, we decided that we might get one bear from his zoological category and some small game. The Parishnath itself, being a small sanitarium, we accepted the invitation, and forthwith commenced preparing for our trip by loading cartridges, examining our gun-boxes, etc.

While discussing the *pros* and *cons* of trains and luggage, Tommy Spratts, nicknamed "Pickwick's Fat Boy," or, for short, 'Pickwick's,' appeared on the scene, and immediately interrupted our council of war by being inquisitive.

"Well, you two Johnnies" (Tommy is given to slang), "you are looking awfully wise. What's up?"

We informed him of our project, and he, waxing bold, determined to go a bear-shooting too.

There was one advantage in having 'Pickwick's' with us. Unlike the renowned character so skilfully depicted by Dickens, our Tommy was not of a sleepy disposition, but his eating powers were enormous, and he could amuse our duller hours by acting as a target to our caustic and witty darts.

We left by an early train, and reached Mudhapore on the East Indian Railway, about 9-30 A.M. After a capital breakfast at Kellner's, which cost us only Rs. 1-8 each (I noticed Kellner's kansamahs' mouths and eyes open with astonishment at the gastronomical

powers of our fat friend), we changed into the Giridhi train. The couple of hours spent before arriving at that station, Jack lightened by yarning. His experiences in bear-shooting were rather extraordinary; and I never thought it was possible for man or beast to get into such uncomfortable places until he told me. However, I am fond of salt, and took a lot with his yarns. Jack is very fond of putting a fright into his audience. His tales did not affect me, but I am not certain about "Pickwick's." I forgot to ask him. We arrived at Giridhi at 11-30 A.M. There is one thing I noticed in the station, which is a nuisance, and must be a source of annoyance to travellers, and that is the number of filthy beggars who crowd there soliciting alms. Getting rid of these men by throwing them a few pice and threatening them with our fiercest expressions, we made arrangements for a cooly dâk. The Baboo, the owner of the delapidated looking tum-tum and four-wheeler, hurried up his coolies, and our luggage was quickly packed on the top of the tum-tum.

Seeing "Pickwick's," after alternately looking at him, at his cart, and then at the luggage, an anxious expression crossed the owner's face. He felt the safety of his cart endangered, and suggested that we could travel, not only with greater safety, but also more comfortably in his heavy-looking four-wheeler. We positively refused to go in the latter concern, as it had the double disadvantage of being twice the price, and took the coolies twice as long to get over the 25 miles of ground with it.

We compromised the matter by sending our luggage by a cow-cart, and testing the springs of the tum-tum by forcibly injecting "Pickwick's" in first. The bakers' vans running in the streets of London bear the nearest resemblance I can think of to the vehicle we were in. Inside were a couple of cushions inviting a recumbent position to the traveller, with space enough for one person to be tolerably comfortable, but decidedly cramped for three. Six to eight coolies can drag and push the cart along. He is a wise cooly who chooses the pushing job, as he can, unseen, leave his brethren in front to do the work, while he helps on their laggard feet by continually shouting out some such astonishing expressions as *Jaldi jao, jawan lok!* *Rustu lumba hai* (Go quickly, you strong men; the road is long), not unmixed with a few abusive epithets. However, this misunderstanding of the divisibility of labor on the part of our men behind, we quickly rectified by making them take it in turns to pull in front.

We soon were passing through the collieries of the Bengal Coal Company and the East Indian Railway, and were struck with the cleaner appearance of the latter Company's works as compared with those of the former.

To one who has spent some months or years in Lower Bengal, and whose eyes have become accustomed to undulating plains and paddy bunds, the sight of hills looming forth in irregular outlines around one, is as refreshing as a glass of water to a thirsty soul. After leaving Giridhi behind us, we shortly were threading our way through hills, which, richly covered with trees and bushes, their varying forms capped by high Parishnath, formed some scenes worthy the brush of a landscape artist.

We had the comforts of the Government Grand Trunk Road all the way, but, notwithstanding, the comparatively slow progress we

were making made us all feel sick of the cart by the time we had reached the Barakur river, and we heartily wished we were at the end of our journey. The Barakur is spanned by a Wari Tramway, put up by the Baragunda Copper Mines. It is used only in the rains, when the river is uncrossable.

As we jogged along, the stunted appearance of the trees and the jungly scrubs, along each side of the road, gave way to bushes intermingled with white and red flower clumps and trees of nobler appearance, some of whose tops appeared to vie with the hills themselves in height. Parishnath, with its temple built by Jains some 2,000 odd years ago, claimed our close attention, and added beauty to itself by its contrast with its smaller brethren.

At every turn and twist of this snake-like road, we would see this hill staring us in the face, and watching the snail-like movement of our eight-coolied vehicle. We covered miles of ground, and still it looked down on us from apparently exactly the same distance, till we felt that Parishnath had decided to become a travelling hill.

On the road we passed a royal elephant, or, at any rate, one which was honored by royalty. We were informed that the native gentleman riding on him was a rajah of something, or somewhere, but look as I could, I saw nothing exalted about this personage, unless wearing an old smoking cap was an insignium. Jack said he must be an exalted personage, being so high in the air. At any rate, he looked down upon us.

Not until dusk was casting a heavy shadow over hill and dale, did we near our longed-for haven of rest. "Pickwick's," who had more than once tried to ease his august person on our weary bodies, by some subtle reasoning taking us to be cushions, nearly caused a calamity by over-tipping the cart. Only by discoursing learnedly on the laws of equilibrium did we convince him that he must sit still in the centre of the conveyance. We, however, carefully watching our fat friend, at last reached Charlie's hospitable bungalow in safety, and his wife's bright greeting did away, in great measure, the troubles caused by travelling in a Baboo's tum-tum.

After a good night's rest, we were up early, and spent the rest of the day in going over the Company's works.

Copper mining has much to interest an observer. The ore raised in kibbles is taken to an ore-crusher, a machine worked by an 'eccentric,' resembling in its motion the jaws of a human being. On noticing this machine, I unfortunately drew a comparison between its capacious jaws and those of Pickwick's. I say 'unfortunately,' because I was very nearly 'gone for' by that gentleman, whose one tender point is his eating capacity.

I think it was only owing to Pickwick's respect for the tender sex, a number of whom were working close by, breaking and selecting the ore, that I escaped bodily hurt.

Taken from the stone-crusher, the ore is shot down a chute, where commences its washing by a continual play of water. Passing through revolving sieves of various sizes, it gradually, by the process of gravitation, gets sorted and cleaped, and still further gets separated from other deposits in jiggers. From these jiggers it passes into puddling machines, worked by a water-wheel. It is then packed up in bags, and sent to the smelting works at Giridhi. Such

is a rough outline of the process the ore goes through after being raised from the mine.

The Company is very lavish in its machinery and has everything of the best. The head-gears or frames are all of single rope, the kibbles being raised and lowered by steam winches similar to those seen on board ships. The men, instead of being lowered in buckets or cages, go down the shafts by iron ladders of 16 feet length, platformed; or enter the mines by inclines. The shafts are rectangular, and are timbered and partitioned off—half for the play of the kibbles and half for ladders. Some of the shafts are over 300 feet in depth, and to one unaccustomed to go up and down by ladders, it became rather puffing work. When we were going down, 'Pickwick's,' who had laboriously managed to get down three or four ladders, suddenly commenced shouting and yelling for assistance. Thinking he must have fallen and hurt himself, we rushed up the ladders, and to our great amusement found he was stuck. "Help, you fellows," he shouted; "I can't move." The man-hole in the platform at the foot of the ladder was too small for his corpulent body. After vainly attempting to pull him through, we gave it up. Jack suggested that we leave him there for a couple of days till he became thin enough, but, being of a more compassionate nature, I put the idea forth that we should get up another shaft and try and pull him up instead of pulling him down. If this proved a failure, we could only liberate him through the assistance of the carpenters. This we did, and my brilliant idea met with the success it deserved. Rubbing his affected parts tenderly, 'Pickwick's' declined to better his knowledge in copper mining, and remained on the surface, while we explored the underground works.

We traversed long galleries, sometimes nearly bent double, at other times seeing the roof high above us, timbered with massive trunks and planks on all sides.

We could see the miners, like so many moles, tinkering away, with hammer and chisel, at the hard rock, making holes 1 foot to 18 inches deep for blasting. The lamps of the men, casting weird shadows around us, made an impressive and uncanny sight. The galleries are driven by contract at Rs. 10 or 12 a foot.

The next day, we three holiday-makers went to a large tank, some six miles away, to shoot brown duck and whistling teal. We saw the duck, but were not very successful, only bringing home one brown duck and two whistling teal, which fell to Jack's gun. The tank was too big to get within shooting-range, so we gave it up until such time as we could make a raft and get a better chance at them. However, we made up our disappointment in duck-shooting by accidentally discovering a capital snipe field, and spent a merry hour in tumbling into holes full of water, struggling through *kadda*, ankle-deep, and loading up as fast as we could while we followed the birds up.

Although the Baragunda Copper Mines are only 80 or 90 odd miles from Muddhapore, a total change appears in the character of the natives, their villages, huts, and cultivation. The villages, few and far between, and much smaller in appearance, are better laid out, the huts being built more in uniformity with one another. The thatched huts seen in the Raneegunge coalfields here give place to red tiled huts, built in a better manner and on a larger scale. Bengali

is not spoken, and is scarcely understood, the colloquial being Hindustani, a change which is striking, considering its proximity to Bengali-speaking people. The castes are mainly Etwahs and Santals, the latter being of a more jungly class than their brethren in the coalfields. In passing through their villages, a contrast to the Bengali-speaking natives is at once noticeable in their less inquisitiveness and their way of greeting. In passing through the villages of the latter, "*Pocca deen do ; Elam do*," is shouted at you from all sides by children and women till you are out of sight, while these people content themselves with a passing look and a "*Salaam, Sahib*," the latter greeting sounding ever so much more refreshing to us.

Wheat seems to be cultivated more than paddy, and labor is plentiful. The men would turn out good technical workmen, were their naturally lazy habits overcome.

After various attempts at bear-stalking, climbing hills, scrambling up huge boulders, getting any amount of thorns and scratches, our energy unabated, as we searched cave after cave for master Bruin, we gave up this promiscuous way of trying to get at the animal. Our only hope lay in having a large beat. We tried hill after hill which looked likely haunts of the bear. We saw the claw marks, the scratches made by the animal as he climbed over big boulders of rock, but through unreliable *khubbar*, or our ill-luck, the bear was always *non est*. A few months previous to our arrival an officer in the army on his first shikar knocked over a couple. We ourselves were in possession of two bear cubs stolen from some caves a few weeks ago, and we felt certain that we would get at least one bear, so we determined to have a large beat on the Sunday following, as all the miners take a holiday on that day.

Notice was given, and we set out like a small army, 300 men following in our wake with drums, bows and arrows, and all other paraphernalia of a native party on a *shikar*.

We chose a most likely spot for the annihilation of master Bruin. In a small valley of the two hills the men were to beat ran a dried-up nullah covered with bush and jungle. With our hatchets we quickly cleared an open space, so as to get a clear sight of master Bruin should he steal along this nullah. Each of us chose a point of vantage on a tree, which we further improved by clearing away all the intermingling branches. Jack on the left, I in the centre, and Charlie Veering and 'Pickwick's' to the right of me, we formed a most murderous-looking ambush. Distributing bits of paper to each man as a ticket, so that we may know who were in the beat and who were not, we appointed sirdars to see that the men kept in double line to prevent the bear breaking, and away they started to beat three or four miles over hill and dale. After an hour, we heard the men nearing, as the yells and shouts and the beating of the toms-toms were enough to drive a bear or any other animal out of its senses. All of us on the *qui vive*, were ready for a sport which has just enough danger in it to be exciting. Two or three rocks came crashing down the hill, and the yelling and shouting nearing us, we expected every moment to catch sight of the bear. Still no bear appeared, and we thought he must have broken back, when we caught sight of the men quite close to us, and our eager expectations were rudely broken up. The only thing got out of that blessed jungle was a wild cat, which one of the men had killed. One or two of the

men on the beat, wishing to give us a little bit of excitement I suppose, had loosened some boulders and set them rolling down the hill, which we fancied had happened through master Bruin having to hurry his footsteps more than his usual wont. So ended our bear hunt.

Charlie Veering, after seeing all our futile attempts, coolly informed us that in another three months' time we would be able to get as many bears as we want. He is very consoling.

However, we passed a very pleasant holiday, and had plenty of sport in green pigeons and snipe shooting.

We returned to Lower Bengal, regretting having to leave the delightfully cold weather we experienced behind us.

"WHAT'S IN A NAME?"



HE above is, perhaps, one of the most hackneyed quotations in the English language, but in spite of the wisdom and truth of most of the sayings of our greatest of dead-and-gone poets, there may often be a good deal in a name, as the story I have to tell will show ; for, if it had not been for a name, certain things would not have happened. When the —th went to Gurumpore, there was a regular little flutter in the dovecots of the station, for among the new comers was a baronet, and, what was still better, that young man had eight hundred a year of his own ; but—and there is always a 'but' in little matters of this kind—"one can't have everything you know," as one covetous maiden said plaintively to a bosom-friend of hers. Sir Hugh Avenell was very young, painfully bashful, and decidedly ugly and stupid. A great many people wondered why Sir Hugh, who could have a very good time at home on eight hundred a year, should choose to come out to this 'God-forsaken country,' as it has been so often unjustly called, but his people had always been soldiers. The —th was a regiment rather lucky in the way of service, and young Avenell wanted to see something of the world, while India to most youngsters at home means 'big game,' 'fine sport,' and other equally tempting things. And so 'he came, he saw, and he conquered,' or rather he went to Gurumpore, and had conquered all the female hearts in the place before he had ever seen their owners. "You must call on everyone, Avenell," said his brother officers to him ; and the boy, who had been brought up by an aunt who prided herself on never forgetting her duty to society, sighed, and said he supposed he must.

A very high collar is not the most comfortable thing on a hot, Indian day, when the thermometer is a hundred in the shade, and the punkah-wallah an unusually drowsy one, but the silver-top of a walking-stick is always a comforting morsel in some men's mouths, and Sir Hugh found it so when he sat in Mrs. Wilmot's drawing-room, and had nothing to say. "Oh dear! oh dear!" thought the matronly woman who sat opposite her silent visitor, "will he ever speak?" She had tried several subjects, but Sir Hugh could think of nothing but his collar, which had lost much of its pristine freshness. A sudden thought then struck Mrs. Wilmot, who remembered having heard that the baronet was a keen sportsman and a great lover of dogs and horses, so she immediately attacked him on that subject, and informed him that she was extremely fond of animals and kept a number of dogs ; and Sir Hugh, in return having told her much the same thing.

silence once more reigned supreme. "Will he never go?" thought the lady with a sigh; while "how can I escape?" was the one idea possessed of at the moment by the young man, who in spite of the aunt, had not learnt how or when to take his leave. And now certain things happened. Mrs. Wilmot growing tired of her visitor's stupidity, rose and said, "Excuse me a moment, Sir Hugh Avenell," and going to the door she called out, "Butcha, Butcha." That familiar name attracted this British subaltern's attention at once, and he was immediately interested. He had not been in the country long, but at least three of his brother officers possessed canine treasures, answering to the name "Butcha," and in two houses, at which he had already called, a 'Butcha' had resented his entrance with loud and angry growls. So this young man, who was always only too painfully eager to be polite and of use, rushed after his hostess and said, "Allow me Mrs. Wilmot," and looking round the doorway he called "Butcha, Butcha," in a stentorian voice assumed for the occasion, and then adding insult to injury, he whistled! Mrs. Wilmot's tone and air were awful, as she turned on the astonished young man with a "Sir! how dare you? My daughter!"

"I beg your p—pardon," stammered Sir Hugh, turning furiously red, "I don't understand."

"I am calling my daughter, sir," repeated the lady, whose countenance bore an expression which her visitor could not forget for many a long day.

How he got out of the house Sir Hugh never knew, but he found himself standing hatless, and without his stick, on the verandah steps. He mournfully got into his trap, and drove on in a bewildered manner, while his syce, who had more wits about him than his master, went back, and interviewed Mrs. Wilmot's bearer, about the missing articles belonging to his 'Saheb,' who in the meantime stood a very good chance of getting sunstroke.

There was much rejoicing that evening in the mess-room of the —th; for Sir Hugh had unbosomed himself to his greatest friend, seeking advice about the trouble he was in; and the 'friend,' like most of his kind, thought the joke too good a one to be lost.

So, after dinner, Sir Hugh might have been found on the sofa with half-a-dozen of his brother-officers sitting on him, to keep him quiet, while the story was once more told for the benefit of the rest. "What shall I do?" groaned the wretched man, who found his position a trying one in more ways than one, none of the men ensconced on him weighing less than ten stone. "What will you do?" echoed one. "Why, go and call again!" laughed another. "They worship the 'Golden Calf,'" said a third; "let the 'Golden Calf' himself do a little of the worshipping at their shrine, and all will be forgiven him." At this everyone laughed—as in duty bound—at the jokes of the 'funny man' of the regiment, while the 'Golden Calf'—for such was Sir Hugh's nickname—groaned once more. "Do you mean to say?" remarked one man getting up from his comfortable seat on Sir Hugh's recumbent figure, "Do you mean to say that you did not know that Miss Wilmot was always called 'Butcha?' It is a name of her childhood, which has stuck to her, and which she will never get rid of, for it is so appropriate."

"How on earth was I to know what she was called?" growled young Avenell, managing at last to get off the sofa, on which he had

so long been unwillingly reclining. "Such a ridiculous name, too; only fit for a dog! And knowing so many dogs called 'Butcha,' how was I to know Mrs. Wilmot meant a girl? Besides, why couldn't she come in to see me? it would have saved all this bother."

"Ah! that's where the shoe pinches," laughed one of them. "Fancy any girl not showing more curiosity about such a distinguished visitor."

"What is she like?" asked the baronet more calmly, an iced peg having put him into a better frame of mind.

"Just what you could imagine a 'butcha' to be," said the funny man gravely: "small, young, innocent, and soft."

"Pretty?" asked the 'Golden Calf,' growing more interested, and lighting a cigar. "Sweet!" was the reply, which sent Sir Hugh home to his quarters to sleep and dream of 'Butcha' Wilmot, a thing he would never have done under any other circumstances.

The next evening the Bachelors gave their Ball, and before Sir Hugh knew anything about it, he had been taken up to Miss Wilmot, and in another minute was standing before her, engaged to her for the next dance.

The surprise caused by her personal appearance was such as to leave him speechless. "Butcha, indeed!" he thought indignantly, giving a side glance of awe mixed with admiration at the tall Juno-like beauty of the girl to whom he had called and whistled, thinking her a dog!

The horror of the thought made him turn quite cold. The valse was already half over, and Juno was gazing sweetly across the room—though there was an angry light in her eyes—wondering when her silent partner would finish struggling into a pair of kid gloves half-a-size too small for him. Having managed to split the thumb of each glove, the baronet, by this time extremely hot, and 'blushing like a Worcestershire orchard before harvest,' said, in the meekest of tones, "shall we take a turn now?"

"By all means," said the beauty, frigidly, never forgetting for a moment that her partner was a baronet, and had eight hundred a year. They took a turn, but it was fraught with so many adventures that it did not last long. In the space of three minutes Sir Hugh had managed to tear a yard of gauzy material off his partner's dress; had trodden on both her small feet, as well as on her pet corn, and had steered her, with terrific force, straight into another revolving couple. Altogether the attempt was not successful. Apologizing humbly, he led her out into a verandah dimly lit with Chinese lanterns, and found his partner a comfortable seat, determined to get into the good graces of the girl of whom he had been dreaming ever since he had innocently offended her mother; but he found it hard work. However, the girl began to unbend over the ice which her partner brought her, and conversation began to flow more smoothly. Mothers and daughters in London had been so kind to the young baronet, that a girl who did not seem to care whether she pleased him or not, was a novel and rather pleasant experience, and by the end of the evening Miss Wilmot had succeeded in driving him into a state bordering on lunacy. When they were sitting out for the fifth time in that dimly-lit verandah, of which Hugh Avenell had a tender recollection ever afterwards, he had told her the whole story of his memorable and unfortunate visit.

"Yes, I assure you, Miss Wilmot," he said, growing quite boisterously happy, after having relieved his mind, "when I reached home, I was so miserable, that I nearly blew my brains out."

"Indeed!" said the beauty, freezing once more, "that would have been very difficult I should say." She always found that a little judicious snubbing was good for her male acquaintances now and then, and the baronet was growing too cheerful.

"How cruel!" he murmured; "you don't really mean that, Miss Wilmot?"

The girl said nothing: she was leaning back in the cushioned chair, fanning herself lazily, feeling quite content, and wondering how long it would take her to finish her conquest.

"How I wish I were that fan!" continued the young man, with a foolish look at the ivory and satin toy, which had rested for a moment against the girl's fair face.

"So do I," she replied thoughtfully.

The answer was not quite what Sir Hugh had expected—he having, in fact, expected a snub,—and trying vainly to possess himself of the girl's hand, he asked, "Why?"

"Because, then, I could shut you up, without being rude," replied the girl, rising and turning to say, "Good-night."

Sir Hugh was sorrowful for the rest of the evening, and had nothing to say to the funny man, when that tiresome personage said, "Well, Avenell, for a bashful man who does not care for ladies, you did very well this evening."

A course of dinners, dances, and picnics finished the work of destruction; and there came a day when the baronet, summoning up his courage, thought he might venture to call the girl he was to marry, by her universal nickname.

"I will marry you," she replied, "only on condition that you never utter that objectionable name again; it has been the greatest trouble of my life. Do I look like a butcha?" And she drew herself up proudly.

"No, you do not," said her lover, meekly. "But what's in a name? though, after all, it is the name that did it all. I should never have made your acquaintance probably, if it had not been for that terrible mistake which I made; I never go into society, and should certainly have never gone to that Bachelors' Ball, if it had not been for a mad desire I had to gaze at you from a respectful distance." And the baronet's arm stole round the girl's waist, which, as the 'funny man' had said before, was not bad for a bashful man who shunned ladies' society.

GRETCHEN.

THE STORY OF NINA D'ENCLOS.

[A LEGEND OF BRITTANY.]



“NINA, Nina, your frequent visits to the glass cannot but make me tremble for your future,” said old Dame Wilson, as she viewed her pretty grandchild regretfully through her glasses. “It brings back to mind a legend of a namesake of yours I heard many years ago.” “But why, dear granny?” retorted Nina Lindsay, a beautiful *petite* creature of some sixteen summers, as she nestled close to the benign-looking body who had just addressed her. “Everybody says I am singularly pretty, and Captain Skene even went so far as to say that ‘my eyes were of the loveliest hazel, while my lips seemed absolute scarlet rather than coral!’ Does it not please you to see your granddaughter admired?” she concluded with a pout.

“Yes, dear Nina,” replied the gentle lady, “but it grieves me much to think you pride yourself so on what is, at best, a heritage to endure only for a few, fleeting years, and moreover—” “Never mind, granny,” interrupted Nina; “please, don’t begin sermonising, but tell me this story about my namesake. Who was she at all?” and so saying she seated herself in her favorite attitude, at her grandmother’s feet, and settled herself cosily to hear another of Dame Wilson’s many stories.

“Well, child,” the old lady replied, “the story is rather a sad one, and refers to a legend even now extant in Brittany, though I heard it told by a peasant woman of the soil well-nigh thirty years ago. Nina D’Enclos was a French lady, wealthy, well-born, and the possessor of great beauty. She, too, was in her sixteenth year at the time the circumstances I am about to relate transpired. While one day lost in admiration of herself before the glass, a sudden thought struck her that her beauty was almost her sole power of attraction, and that when she grew old and wrinkled, and the lines of care and of many years had begun to stamp their indelible impressions on her now beautiful countenance, she would be treated with indifference, if not overlooked altogether, while younger and fairer rivals would occupy her place, and receive the homage she now commanded. ‘I wish I could remain beautiful till about ninety,’ she suddenly exclaimed, while she undid her beautiful hair, which hung in massive coils around her head. Scarcely had the words escaped her lips, when the clock struck the hour of midnight, and there came a knock at her door. On enquiry, she found that her footman had come with a message from a gentleman who refused to give his name, but who insisted on seeing her immediately. ‘Tell him I am out, asleep, engaged—something,’ she said irritably, for even the triumphs of beauty have their disadvantage in fatigue.

The footman disappeared, but returned almost at once, saying that the gentleman said that he knew that the lady was neither out, nor asleep, nor engaged, and that he insisted on seeing her. 'Show him in then, if he must come in,' she exclaimed, while she hurriedly dressed and descended to the reception room. Her visitor was there before her, a little gentleman dressed all in black, with dark glasses on his eyes and a small cap on his head, which, as he removed, showed his hair gathered together in a tuft at the top. 'What is your business?' she asked curtly, as he bowed low before her, and yet there seemed to be a forced humility about his salute which showed a ruler rather than a slave of men. 'That you shall know when the footman leaves us,' he replied in a voice that seemed to penetrate her system, and yet was strangely hollow. The domestic obeyed, and the stranger, turning to the lady, continued: 'You expressed a wish to remain beautiful till ninety years old. What if I tell you that I have the power to give you what you want, to let you at ninety maintain the same velvety locks and the same figure you now possess; the same dark, powerful, attractive orbs, with those full lids, long lashes and brows a glorious black; the same dazzling complexion, the same bewitching smile, the same hands and feet suggestive of birth and breeding beyond all doubt?' and he leered at her through his dark glasses in a way which made her shudder.

"If this is the nonsense you wish to see me for, the sooner your visit terminates the better," she exclaimed angrily, while her hand sought the bell-rope. But, even in the act of pulling it, she stopped; for there was that in the cold glitter of those restless eyes which made her desist, while a chill of fear possessed her and held her spell-bound. 'The conditions by which you can obtain your desire are easy,' he continued imperturbably; 'you have only to write your name here,' and, so saying, he produced a pair of tablets and handed to her a pencil. She seemed to have no power of resistance, and, though not believing at all in the truth of her visitor's professions, she entered her name in his book and handed it back to him. 'There, now, I hope you are satisfied,' she said, 'and as far as I am concerned, I care not to see you again.' 'But you will!' he confidently replied, 'twice again, and you will remember both occasions well.' He bowed and took his leave. But not through that night, nor for many another, did Nina D'Enclos close her eyes without a shudder at the thought of those dark, glittering, malevolent orbs.

"And now, as years flew by on the relentless wings of time, she still remained as beautiful in face and form as when she entered her name in the stranger's tablets. One by one her contemporaries passed away to that bourne from which there is no returning; one by one her admirers made place for a newer generation; one by one their seats were occupied by their sons and nephews; and still Nina D'Enclos reigned supreme in all her beauty. Admirers thronged round her as in days gone by never to return, and she received more than one offer of marriage from the sons of those she had rejected in her younger days!

"And so the time flew by, till sixty winters had passed over her head, and she was yet, as fair and as winsome as when she could count to herself only sixteen summers, and even while she sat thinking over the long years that had gone, and her extraordinary preservation from the ills to which flesh is heir, a visitor

was announced. A young and handsome man he was, in the full pride of manhood, and he had come to woo the reigning beauty, and to lay his hand and heart at her feet. Rapidly, and before she could interrupt him, he told his tale of love and passion, nor was it till he saw the looks of agonised dismay on her face, did he desist, and court enquiry as to its meaning. 'Up, up,' she almost yelled; 'do you know what you are doing?', and as he seemed still more perplexed, she continued hysterically, 'Six and twenty years ago I gave birth to you in this very house, and, to hide my shame, I had you reared in Spain, and take service in the army of that country, nor did I ever expect to be placed in such a position: of a truth, my sin has found me out!' The young soldier was dazed by what he heard, but so ardent was his passion for this unfortunate woman that, rather than live without her, he drew his rapier and fell on it, the blade passing through his heart. With a scream of agony, Nina D'Enclos fell to the ground in a faint, but, above all the tortures of that terrible day, there remained a distinct recollection of that blood-curdling laugh she had heard before, and of the sudden re-appearance of her mysterious visitor of sixty years ago.

"And so her span of life grew to a close, and yet she remained all-beautiful, till in the last years of her existence she was courted by the grandsons of the lovers of her youth. But when her ninetieth birthday came, she fell ill with a sickness which none of the greatest doctors of the time could remedy. She was still as glorious as ever to look upon, but unable to leave her bed; and things were in this condition when the hour of midnight struck once again: then, as the last stroke ceased to reverberate through the silent house, a new doctor was introduced into the room, a little man, dressed in a black suit, with a cap in his hand, and dark glasses on his eyes. He entered, and, silently closing the door, addressed the patient: 'I have come for you,' he said, and pointed to her entry on his tablets of ninety years ago. She struggled, resisted, but all in vain. A horrible shriek rang through the house, which brought the domestics in pell-mell. The little black man had disappeared, but Nina D'Enclos was there; but how changed! The beautiful woman had disappeared, and in her place lay a yellow, withered creature, with long hands and distorted visage. On her throat the marks of strangulation were plainly visible."

* * * * *

Nina Lindsay never forgot the moral conveyed to her through her grandmother's story, and good Dame Wilson never had cause to regret her relation to the girl of the Legend of Brittany.

L. M. G.

SCIENCE NOTES.

ELECTRIC MINERAL ORE DETECTOR.



THE introduction of electricity into mining operations has led to a new and very ingenious application. A portable device has been arranged whereby rocks of all kinds can be immediately subjected to a test, which will enable the miner to determine the quantity and quality of the metal they contain. For prospectors such a contrivance is invaluable; consisting as it does of simply a battery and spark coil, with two platinum-pointed conductors, enclosed in a handy box, it can be carried on the back, and be available throughout the work of the longest day. Then two points of the conductors are placed against the rock to be tested, and a spark is immediately formed, from the flame and color of which is gathered an indication of the metal contained. It is claimed that the presence of metal can be detected by merely applying one electrode and passing the other rapidly over the surface. The novice, or "tenderfoot," is said to have just as good a chance of successful prospecting with this new device as the most experienced miner. All the trouble involved in the loss of a "lead" in a shaft can now be avoided, as well as uncertainty in the sorting of ores, the difference in which is reliably shown by the electric flame. The whole apparatus weighs about 10 pounds, and an additional recommendation of it is that it can be used for exploding blasts in connexion with electric primers.

TWO EASTERN SNAKES.

From ages past, says a correspondent, the susceptibility of snakes to the influence of music has been fully recognized, and it would be interesting to know how many varieties acknowledge its power. In Ceylon, the natives say that only two—and they the two most venomous, the cobra and the tic polonga—can be charmed. The former, the hooded or spectacled snake, every one has heard of; the latter is not so well known out of the island, and is a far more deadly and dangerous foe. The natives hold the cobra in the highest estimation and look upon it as the king of snakes—the Tamil name for it being in fact "nulla parmbu," or "good snake," and I think it is an admitted fact that it will seldom, if ever, attack anyone unprovoked. I have myself seen cobras under many circumstances, and although I have conscientiously destroyed every one that I have been able to, I have no hesitation in saying that they are not dangerous unless disturbed. In proof of this I would quote the case of a pair that occupied a hole in a clump of oleanders in a certain garden for several years. No one ever disturbed them, and they sunned themselves where they pleased, and the gardener rather looked upon them

as an additional attraction to the place. They used to eat squirrels, young birds and anything else that came in their way, but never attempted to do any harm, and remained unmolested as long as I knew the place, and probably raised an interesting family meanwhile. Unlike the cobra, the tic polonga is always ready to attack on the slightest provocation, and, as it inhabits many localities—some being found in shrubs and trees, some in grassy waterways, and others invariably in the vicinity of footpaths,—it is more often met with, and is, I think, responsible for most of the fatal cases of snakebite that happen from time to time. This difference in the habits of the two snakes is well known to the natives, and is the subject of one of the Singhalese fables, which is as follows:—One very dry year, when little rain fell, when rivers had dwindled into a silver thread, when tanks were baked hard and brown, and wells and watercourses were dried up, a polonga, suffering agonies from thirst, and faint from the overpowering heat, met a cobra looking very lively and refreshed. "Have you found water anywhere?" gasped the polonga. The other said: "Yes." "Where—oh, where is it? Tell me, I implore you, for I am dying of thirst!" said the polonga. The cobra replied: "I cannot tell you unless you promise to do no harm to any living thing that may be beside the water." "As for that," replied the polonga, "I would promise anything, so that I might quench this intolerable thirst." And he gave a solemn promise. "Well, then," said the cobra, "beyond those bushes is a large earthen pan of water, in which a child is playing. Go and drink from it, but, at your peril, do not harm the child." So saying they parted. The cobra, after going a little way, began to distrust the polonga, knowing the latter's treacherous disposition and rugged temper, and turned to follow him. He arrived too late. The polonga had not only drank of the water, but crept into the pan where the child began to play with him. On this he grew violently angry, bit the child with all his force, so violently, indeed, that the infant died in a few minutes. The cobra, in hot and fiery indignation, attacked the polonga and punished him severely, biting off a piece of his tail. Hence, to this day, all polongas have blunt tails. Ever since cobras and polongas have been at deadly feud. There are the most deadly serpents in Ceylon. When people hate one other mortally they are said proverbially to be like cobra and polonga.

AN INTERESTING EXPERIMENT.

A rather amusing trick can be performed at the dinner table with the aid of two wine glasses and a visiting card. Take two claret glasses of the same size, and fill one with claret quite to the brim and the other with water. Cover the glass containing the water with the pasteboard card and then ask if anyone at the table can transfer the claret into the glass containing the water without pouring out or spilling the liquid in either glass. At first it appears that this is quite impossible, but it may be easily accomplished by inverting the glass containing the water and placing it upon the other glass. After the edges of the two glasses have been brought opposite one another, the card is slipped carefully to one side so as to open a small communication between the two glasses; this done, there immediately begins an exchange of the liquids, and it is observed that the claret is flowing in a gentle stream into the upper

glass, the water descending through the small opening and displacing the claret. The claret soon begins to spread out in an even body over the water contained in the upper glass. This process continues until there is a complete interchange of the two liquids. Of course the explanation is simple enough. The water being a heavier liquid than the claret sinks into the lower glass, and the claret is forced up to fill the displacement of the water. It flows in a steady, clear-cut stream, and the effect as it rises through the water is very fine.

It is remarkable that in this experiment there is no observable intermixture of the liquids. The water contained in the lower glass after the experiment is quite clear and transparent. It is also curious that the water in the upper glass passes the space between the rims of the glasses, and enters the lower glass without any leakage whatever. This, however, is fully explained by the surface tension existing on the liquid at this point.

The card used in this experiment is about the thickness of an ordinary postal card. The experiment is easily performed, and is worthy of trying. The upper glass containing the water may be lifted and carried about while the card is attached, without holding it on with the hand, thus illustrating in a well-known way the effect of atmospheric pressure.

CHISELING GUN COTTON.

Gun cotton is pure cotton dipped in a mixture of pure nitric and sulphuric acids. In seeking a method by which these ingredients might be obtained absolutely pure and the cotton thoroughly treated with the acids, many years have been spent and serious accidents have occurred. In preparing it for this service the gun cotton is, by successive pressings in hydraulic presses, the last of which has a pressure of 6,800 pounds to the square inch, made into little blocks measuring $2\frac{1}{2}$ inches each way. It now contains from 10 to 16 per cent. of water, but when issued to the service contains 35 per cent. Before being made up into blocks it is carefully tested.

Gun cotton, correctly prepared and handled according to directions, is the safest of all the explosives. It is dangerous only when the materials have not been thoroughly purified, or the union of acid and cotton is incomplete.

In proof of what can be done with it, a picture may be thrown upon a screen showing the workman cutting it with chisel, jig saw, and lathe to fit it into a shell. Another illustration is the extinguishing of a block that is burning by pouring water upon it. Two thousand pounds of it has been burned in a bonfire without an explosion.

One volume of the explosive gives 829 of the gas, and the pressure developed by combustion is eighty-one tons to the square inch, and by detonation 157.5 tons, the latter being in contact, however. The effect of the explosion of one particle on another is so rapid that it would take only one second for it to pass through 19,000 feet of the explosive.

It was shown by the stereopticon at a recent lecture on the subject, that the letters U. S. N., with the date of manufacture, that are on the bottom of each block, are impressed upon an iron plate upon which the gun cotton may be exploded. It is a curious fact that, if

the marks on the block are in relief, the reproduction on the iron will be raised, and, if cut in, there will be an indentation on the plate. Professor Munroe's theory is that, when the letters are cut into the explosive, the gases generated in the indentations are hurled from them as a projectile from a gun. If a leaf or a delicate piece of lace be laid between the gun cotton and the iron, its impress will be left in all the perfection of outline of the original, though the article itself is absolutely annihilated.

JOB AS A STEAM ENGINEER.

The last place in which one would naturally look for a description of the modern steam engine would be the book of Job. Yet a recent author has presented in a large octavo volume of 362 pages his conclusions on this very point. They are to the effect that the entire steam plant, railway organization, boiler and engine practice, are treated of by the inspired writer. If the author's view of the case were adopted, a new chapter in the history of the steam engine would be supplied, and the Marquis of Worcester would have to yield to Job as the pioneer in steam engineering.

The Behemoth and the Leviathan have always been fertile subjects of controversy. The whale and hippopotamus respectively have been adopted by many commentators as the animals referred to. But Mr. Trudell goes beyond the most daring innovator, and in a revised version of the passages relating to these monsters finds allusions to the steam engine of to-day. A description of the method followed in his new interpretation will give the best idea of this most striking effort in the field of biblical criticism.

The author, fully to support his theory, has been compelled to furnish a new rendering of the parts of the book of Job which he uses. Accordingly we find a translation given of the passages in chapters xl. and xli, which relate to the Behemoth and Leviathan. The claim is made without reserve that it is the modern steam engine in its different forms that is there described. It is evident that our space does not permit us to give the full bases for the argument. The separate verses are made subjects of as many chapters, and the analogies traced between the descriptions in the poetry of Job and the more prosaic steam motor are really surprising. The most curious details are traced out, such as the supply of water to the boiler, the upright smoke-stack, and even the manipulation of the stock of railroad companies is found described. The size and number of pages in the volume give the best evidence of the work bestowed by the author upon his labor of love.

It may be worth while to cite from the special translation appended to the book some of the most striking passages. The account begins, chapter xl., v. 15, "Behold now one with great heat, . . . he will consume fodder as well as cattle do," which is a pretty fair description of a steam engine. A little further on, v. 17, it says, "His tail will set upright like a cedar." This, the author concludes, refers to the smoke-stack. In v. 18 we find, "His hollow bones are tubes of brass, his solid bones are bars of iron," which is a very good embodiment of modern engineering practice. In v. 21, which the special translation renders, "He will rest beneath light shelters and within a covering of fibrous reeds and clay," the author finds an

allusion to non-conducting covering for boilers and steam pipes. Going on to the next chapter, we find v. 6 thus rendered, "Companies will feast upon him, they will share him among speculators," which it is needless to say fits the case of modern railroad companies and speculators exactly. This is one of the extraordinary parallels of the work. It is perhaps equalled by v. 2 of the same chapter, where the hook (ring) in the monster's nose is construed as an allusion to the piston rings of a locomotive, and where the jaw bored through with a thorn supplies an allusion to the piston head bored through with its piston rod. The bad effects of an engineer allowing his water to run down is given in the same chapter, v. 26, "From dryness rendering him furious, he will not have power to withhold; the curved vault being caused to break up and also the armor." This, of course, means that the engineer must watch his water gauges, or there will be an explosion.

For a portion of v. 23, chap. xl., and for v. 24 immediately following, the author furnishes the following translation: "Behold he will absorb a river and will not fret; . . . he will gather it up in his fountains by means of traps and with a perforated nozzle." Our author in this finds described the action of a pump with its valves (traps), and the perforated suction pipe with a screen at its end to exclude solid particles. Even the coupling together of a train of cars is found in v. 1 of the next chapter: "Thou wilt extend Leviathan with a hook, or with a snare which thou wilt cause his tongue to press down." The tongue our author believes is the representative of the coupling link, and the hollow drawhead and the pin are the "snare." The caulking of the seams of the boiler is found in v. 15 of this chapter: "His strength depends on courses of shields closed up tightly with a seal." Our author finds nothing clearer than that the "shields" are boiler plates, and the "seal" the caulking iron. He reserves, however, the possibility that the steam riveter is the sealing mechanism.

This much is enough to give an idea of the book. The author has been his own Hebraist. The Semitic student and author Rabbi Benjamin Szold, of Baltimore, testifies to his high opinion of Mr. Trudell's translations. It must also be said in conclusion that the subject is treated throughout with full evidence of critical discernment and laborious investigation.

UTILIZING NIAGARA FALLS WATER POWER.

Probably no one question has more commonly come up among manufacturers and the more intelligent mechanics of America, for years past, than the inquiry as to why the great water power of Niagara Falls has not heretofore been harnessed to the machinery of extensive industrial establishments, and made to do work in some degree commensurate with its mighty potentiality. Beyond the feelings evoked in the mind of the casual beholder by the grand and sublime spectacle here presented, there arises involuntarily in the mind of the engineer an almost boundless prospect of magnificent possibilities in the utilization, for the service of mankind, of the tremendous energy which nature here displays. Something has been done, it is true, in the way of using this natural water power, but such employment has been quite infinitesimal in comparison with the grand total offered. A canal three-quarters of a mile long, commencing just above the

falls, and terminating on the high bank below, has, for several years, furnished the water to run about a dozen establishments, principally flouring mills, but so incomplete has been the provision for utilizing the full head of the water, that, as it escapes in the tail-race, after passing through the wheels, it has, in many cases, a fall almost equal to that of the falls proper.

The great obstacle to the further utilization of this power hitherto has been the immense amount of rock cutting, through the hard Niagara limestone, which any complete employment of the great head afforded by the falls would necessitate. This work has now been undertaken by the Niagara Falls Power Company, with a contemplated investment of over three millions of dollars. A tunnel is to be constructed, of horseshoe shape in cross-section, from the water level below the falls to a point about one mile above the falls, this tunnel being at an average depth of about 160 feet below the ground, and some 400 feet from the river, with which it will be connected by surface canals. The tunnel will thus furnish an immense tail-race for the wheel pits, to be sunk below the level of the canals. The tunnel, canals, and wheel pits will all be cut in hard rock, which occurs at no point over ten feet below the surface. The lower end of the tunnel will be beneath the village of Niagara, and it will have a rising grade of seven-tenths of one per cent.; its cross-sectional area is to be 490 square feet, which is estimated to be sufficient to discharge the water from wheels adapted to furnish 120,000 horse power. The Company will put in turbine wheels in a number of the pits, to furnish power by cable, pneumatic tube, or electricity, and will also lease privileges to customers desiring to make their own wheel pits and put in their own wheels and connections.

The work of sinking the first shaft, from which the tunnel will be projected by lateral headings, does not differ from ordinary rock cutting in mines. The Company has purchased about 1,300 acres of land, extending along the river shore about two miles, affording docking facilities and furnishing ample room for mill sites and homes for the operatives, which will yet be so far away from and above the falls as not to impair its beauty and grandeur in the eyes of visitors.

The location affords great advantages in the way of transportation facilities, for it is on direct water communication with the ports of all the great lakes and the Erie Canal, and side tracks from the leading trunk lines of railway will be run to all the lands and mill sites.

The distinguishing feature of this great enterprise, as compared with all other undertakings by which water power has been utilized for industrial purposes, lies in the utterly inexhaustible supply of water to be drawn from. It is estimated that the tunnel will not take from the river more than four per cent. of the water now flowing over the falls, and yet will furnish an amount of power greatly in excess of that now available at Lawrence, Lowell, Holyoake, and Cohoes combined. In all these manufacturing towns, too, it is to be remembered that the water privileges only cover the right to use water, for a certain number of hours each day, not contemplating night work, and, even with these restrictions, stoppages from want of water are frequent during the summer months, so that very many establish-

ments have found it necessary to supplement their water power with a steam power plant. At Niagara, however, nature has made a great natural dam, by which all the great lakes, draining a country of more than 241,000 square miles, are formed into mammoth reservoirs, so that there is practically no variation in the height of the river from one season to another. Water can, therefore, be as readily supplied for a day of twenty-four hours as for one of ten hours; there will never be any anxiety about the giving way of dams, and the machinery once started need never stand idle.

"THE LOVES OF SOME LITERARY WOMEN."

A SKETCH.

"Why did she love him? Curious fool! he still;
Is human love the growth of human will?"

PART I.



YEARS ago, Mrs. Jameson wrote her beautiful book, "*The Loves of the Poets*," full of delicately-drawn portraits of the "fair women" immortalised by the great gift of Love from Genius. Happy women! yet, alas! so many of them were so often very unhappy. And there have been men, too, whose names have lived, and will live, handed down to posterity as those of the fortunate beings whose fates were to love and be loved by women of genius and talent—men, some of whom can rest on their own laurels; others whose light is borrowed from the greater stars which illuminated their paths in life. It is of some of these men, the loves of women-poets and women-writers, of whom I am going to speak. It was Byron, our most cynical but fascinating of poets, who wrote that—

"Man's love is of man's life a thing apart;
'Tis woman's whole existence."

And in one of the loveliest of dear Charles Kingsley's songs we find that well-known line, "Men must work, but women must weep!" Love may make up a greater part of woman's life, but she is not generally so selfish as to allow it to absorb her whole existence, and, if necessary, she can conquer it, and set it wholly aside, as many a good woman has bravely done; while women have also done a good share of the work in this world, and if a greater part of the weeping falls to them, it does not hinder them in the work they have to do, and many a woman's tear has borne good fruit, for, as we well know,

And "We learn in suffering what we teach in song,"
"Our sweetest songs are those that tell of saddest thought."

Women are said to have found amusement in writing from the earliest ages; and it is thought that many of the oldest English ballads by anonymous writers were composed by women, especially that well-known old ballad of "The Nut-Brown Maid," which belongs to no later period than the fifteenth century. But in later times women have written for something more than mere amusement—for love, life, and duty.

The old adage, "An exception to every rule," always applies; and there are no doubt many of the fairer sex who have more time and money than they know what to do with, and consequently a good deal of trash is given to the world, without which it could do very well; while, on the other hand, time and money give us some things the reading of which makes us better men and women. Love, Sorrow, and Necessity are perhaps the greatest awakers of talent;

and when one has experienced the two former—the two great lessons of life, which we must all learn sooner or later—the latent gift of speech or song is brought forth.

With *George Elliot*, the woman of delicate health, strong mind, and loving heart, whose name stands among the first in the list of great women of the present day, it might be said the course of love did not run smoothly. The first touch of romance in her life was swept away before it had time to take deep root. An engagement took place with a young man whom Marian Evans met in the home of a married sister, but her father made her break it off. We cannot credit the young man with being the cause of the future novelist rushing into study and hard work, to drown her sorrows, or anything so romantic; for Marian was already a thorough blue-stocking, an earnest student, wrapped up in her books, yet withal, having time to make many friends, friendship with whom lasted through life. It was during her first year of residence in London, where she had gone to live the life she loved, and had chosen for herself a life of literary labour, that Marian Evans met *George Henry Lewes*, who was to influence her whole heart, and work, and existence. They were both contributors to the "Westminster Review"—which was then at its best—her part of the work being chiefly editorial. Mr. Lewes was an indefatigable journalist, an inexhaustible writer. While he was part editor of one journal, he wrote for half-a-dozen others; and besides publishing a philosophical work, wrote two novels, one of which, "*Ranthorpe*," though much abused by the critics, gained the greatest of praise from both Charlotte Brontë and Edgar Poe, the former of whom said that it "was not a reflection of any other book, but a *new book*," while the poet said he had derived great "*consolation*" from it. Other works on many and various subjects were written by Lewes, his greatest and most lasting work being his "*Life of Goëthe*." It was this man, with his rather foreign style of looks, his wild spirits, and geniality, and his brilliant talents, whom George Elliot met and loved, and for whom she made such a sacrifice as might only have been expected from such a woman—sensitive as was her nature. Mr. Lewes had already married, and been separated from a wife who was in every way uncongenial to a man of his disposition and talents. And George Elliot, knowing that she was doing that which in every legal sense was wrong; setting her face against the world; and shocking all her best friends and relations, made her choice for good or evil and became the life-companion of the man she loved. By the world such a union was, of course, looked upon with censure, disgust, and many similar feelings; to the two most concerned, it was as sacred as any marriage could be. Living for each other; each encouraging and influencing the talents and works of the other, this strange semi-marriage was only broken by death; George Elliot proving the tenderest and best of parents to the children whose mother's place she had taken.

It was Lewes who first put it into Marian Evan's head to write "a story," and her "*Scenes of Clerical Life*" was the result, astonishing both husband and wife.

It is perhaps not to be wondered at that a woman like George Elliot should marry again when death deprived her of the man or whom she had made the greatest sacrifice any woman can make,

and for whom she had so fully proved her love; and for the short remainder of her life she was the wife,—this time in every legal sense of the word—of *Mr. John Walter Cross*. His friendship for her had been of long duration, and that his feeling for her was one of true devotion and respect is proved, when we hear of him asking her in her old age—for she was then quite sixty—her, who had for years been what the world calls only the mistress, and not the wife, of another man, to be his wife. We can only feel glad that his generosity was rewarded though their time together was so short.

Charlotte Brontë, a sister-genius, the quiet, plain little Yorkshire woman, made up her mind, from the time she began to think of such things, that it was not her lot in life to be loved and wooed and wedded. That she might herself care for some one, she thought very possible: there are few women who do not feel that they are capable of "*une grande passion*" at some time of their lives, even if it never comes in their way after all. And when Charlotte received her first offer of marriage, it was promptly refused; and in speaking of it in a letter to one of her dearest friends, she shows us her views on the subject of matrimony.

She speaks of the man as being a good man, and of her liking him very well, but she says she has not "that intense attachment which would make *her* willing to die for him." "And," she writes, "if I ever marry, it must be in that light of adoration that I will regard my husband."

Romantic, girlish ideas, is what one might say. What one might expect from a woman of highly-strung temperament and uncommon genius! Not the opinions of a young woman with a well-regulated mind! No, but only the ideas of a true-hearted woman, with the best and most righteous opinions on matrimony. It would be better if there were a few more women in the world whose ideas about it coincided with those of Charlotte Brontë.

But in these days, when matrimony must mean so much more than love to so many women; when it so often means a home and a means of livelihood, how can women stop to think whether they would care to die for the man they would at any rate be ready to marry? It is true, women cannot always stop to pick and choose! and they might, with the young novelist, well say what she wrote in that same letter: "Ten to one, I shall never have the chance again," though Charlotte Brontë added the words "but *n'importe*." The thought, we see, did not distress her. The single life which she imagined was to be her portion had no terrors for her. With her the future meant hard work and long study; for the Brontës were poor, and some one had to come forward to do something for the relief of the family. The next thing, then, that we hear of Charlotte Brontë is that she began that course of teaching which was drudgery to her, for in literature she had hitherto been unsuccessful, and there was no other way of earning money, which was sorely needed in her home, especially when there was a brother whose debts were a constant anxiety to the family.

The "Currer Bell" of the future found the life of a governess anything but pleasant. With all her great gifts, and devoted to study and to literature as she was, teaching did not come easily to her; and children were unfamiliar creatures to her, for she had never had much to do with them; and the childhood of herself and her

sisters was very unlike that of other children, for the little Brontës were old and grave beyond their years, and even in their nursery gave promise of the future literary fame which they acquired. Under the circumstances, then, it might seem incomprehensible to many women that the young governess did not avail herself of the opportunity—which she had for the second time in her life—of getting a comfortable home of her own. She was once more back for a time in her home when there came, to spend a day with them, a neighbouring clergyman, who brought with him his curate, evidently a very impressionable and impulsive young Irishman. Charlotte Brontë was always at her best in her own home—hospitable, devoid of the shyness which troubled her when among strangers, and brilliant in her conversation. The Irishman and the little North Country lady got on capitally together during the visit, though towards the end of the evening she rather felt herself obliged—to use a modern epithet—to snub the young man, who began to be rather extravagant (like most Irishmen) in his compliments, and rather more expressive of his admiration than Miss Brontë approved of; for we must remember that she was naturally quiet and shy with strangers, had not been accustomed much to the society of young men, had been brought up in a little Yorkshire country parsonage, and lived in the first half of this century, when there was not so much freedom between men and girls as there is now.

The lady's astonishment can be imagined better than described when a few days afterwards she received a letter from her friend "Paddy," the curate, asking her in most impassioned language to be his wife. With her opinions about such things, it is needless to say that this second proposal was rejected, and about this time we learn, from some of her letters, her more matured ideas about matrimony. Giving advice on the subject to a friend, she tells her not to marry a man she cannot respect. "I do not say *love*," she continues, "because I think if you can respect a person before marriage, moderate love at least will come after; and as to intense *passion*, I am convinced this is no desirable feeling." "God help the woman," she says in another part of the letter, "if she is left to love passionately and alone," and then she repeats, once more, that she is certain she will never marry at all. In spite of her two offers of marriage, she had no conceit on this subject, and thought it impossible any man could love her—small, plain, and insignificant-looking, as she considered herself to be. Once more there commenced for her a life of teaching, first as a governess in a family, and then in a school in Brussels, where she first went as a pupil for a short time, to make herself more proficient for the future which she was preparing for herself. About this time, in answer to a question put by the friend with whom she seems to have kept up a life-long correspondence, she most emphatically, and with much vexation, denies that her supposed *fiancé* is on the Continent. Some gossiping people had been spreading a report that the quiet English governess had her designs on some man whom she hoped to catch as a husband; and she goes on to say that in her utterly secluded life of hard work she scarcely ever sees a man with whom to exchange a single word. "Not that it is a crime to marry," she writes, "or a crime to wish to be married; but it is an imbecility which I reject with contempt, for women who have neither fortune

nor beauty to make marriage the principal object of their wishes and hopes, and the aim of all their actions, not to be able to convince themselves that they are unattractive, and that they had better be quiet, and think of other things than wedlock." Poor little lonely governess, with her years of girlhood passing away in the daily drudgery of hammering knowledge into girls' heads; with a heart capable of loving warmly; with a mind full of anxiety about those at home; so often home-sick herself; and with so much knowledge of sickness and sorrow and death. It is not a cheerful picture of a woman's life. Once more we hear of her denying a rumour of her engagement to her father's curate, the very man whom it was her fate to marry eight years afterwards. This happened when she was once more at home, and had again launched into literature. Charlotte Brontë's life now was more work than play,—one constant struggle against genteel poverty, family troubles, and personal, especially mental, worries, connected with her literary work. Her father's bad health; the worries caused by a brother of dissipated habits; and the ultimate sad death of that brother; the rejection of one novel, the "*Professor*"; the publication and success of "*Jane Eyre*"; the death of a dear sister; the severe illness of another, the youngest and dearest of the family, Anne Brontë, and her death; the publication of "*Shirley*," for the success of which "*Jane Eyre*" had paved the way; long periods of solitude in her quiet Yorkshire home; and occasional visits to London and to friends; made up the sum of Charlotte Brontë's life, when she received a third offer of marriage from a man for whom she said she had "friendship, gratitude, esteem;" but though she had found it so easy to preach, to practice was more difficult: she found she could not bring herself to marry a man on such a foundation alone. When "*Vilette*"—for the writing of which the author seems to have had less heart than her other works—had been written; when life must have spread, before the woman whose youth was over, as bleak, and desolate, and barren as the moors around her Yorkshire home; and when her father's increasing years and failing strength must have made her think of the time when she would be left alone—a dreary prospect for any woman,—then the man who had been learning to love and respect her more from day to day for some years, the man with whom her name had been coupled years before, asked her to be his wife. *Arthur Nicholls* was a quiet and deeply religious man, and his love for her was very deep and true, and seems, with its strength and power, to have stirred Charlotte Brontë's heart at last. Yet, so thoroughly unselfish, so self-sacrificing was this woman, who had always thought of others before herself all through her life, that, at the bidding of her father, who was selfish and exacting with the selfishness of old age, she gave Mr. Nicholls 'no' for his answer. The result was that the lover gave up his curacy, and left the place. In time, however, Mr. Brontë grew reconciled to the idea of the marriage, and ended by taking great pleasure and interest in the thought of it. So we hear of the now famous little novelist, the good daughter and sister, the little old maid as she would persist in thinking herself, at last settling down into the wife of a man for whom she seems to have had that deep respect and affection of which she had spoken, alluding to the subject of matrimony years before, if not that passionate love which seemed the

best thing in her girlhood. She had led a very troubled, stormy life, and in the shelter of a good man's love found peace at last; but alas! her earthly peace and happiness were of short duration. Barely a year was her portion of married life. In the home of her childhood, girlhood and womanhood; among the scenes which had surrounded her matter-of-fact courtship, and brief but very happy married life; Charlotte Brontë laid down on the sick-bed which she only left for her last resting-place, close to her old home, and near the mother and several sisters who had preceded her; the bed from which the last lines she ever wrote were pencil notes to dear friends, in which she says of her husband that "he is the tenderest nurse, the kindest support, the best earthly comfort that ever woman had," and "no kinder, better husband than mine, it seems to me, there can be in this world." Can any man want a greater monument to his character of husband than that? The words must have been sweet to Arthur Nicholls, if he ever saw them, in his lonely childless widowhood. He had loved and waited so long for the woman he married, that the loss must have been doubly bitter when she was taken from him.

GRETCHEN.

(To be continued.)

THE EDITOR'S EASY CHAIR.



KEEP YOUR EYES MODERATELY OPEN, MY FRIEND, AND YOU will be surprised at the amount of fun you will have at other people's expense. It is trite, perhaps, but it is true all the same. I was walking across town the other day "chewing the cud of sweet and bitter fancy," and, as is my wont, "I threw my eye aside," and in its flight it wandered upwards. At a window, on the opposite side of the street, half concealed by the white lace curtains, stood a very pretty girl engaged in what, at first sight, seemed absurd gesticulations. But I looked again and saw they were the letters of the dumb alphabet. Dumb, and so fair! And mad, too, to be talking at a window with her back to any companion who might be in the room. I immediately sympathized with her affliction, the more because she was beautiful. It is a curious thing, by the way, how much more sympathy a pretty girl gets than a plain one. Then I looked a third time to get a last peep at the picture framed in the window and to my astonishment I saw her with a pair of opera glasses to her eyes. It began to get interesting. Those opera glasses meant something, so I walked a little further on and crossed the street to find it out. Then I kicked myself for my wasted sympathy, for, at a window on the opposite side, stood a young man, also half hidden behind the curtains, and, in his turn, he was, more or less wildly, spelling out the words on his fingers.

THOSE WHO HAVE SEEN MUCH OF THE INSIDE LIFE OF SOME comic journals and other journals with comic departments know that this kind of work, like pretty much every other kind, may be made almost completely mechanical. There is a regulation way to make a joke—that is to say, a regulation joke. Of course genuine humor and positive wit transcend all rules, and the great jester is born, not made. But, for all that, there have been professional funny men who hadn't a grain of wit in their composition. For instance, it is well known that the proprietor of a certain great New York daily newspaper has a habit of mixing his editors all up periodically, to prevent them from sliding into ruts, and to give each department the benefit of fresh ideas (and fresh ignorance). From time to time he changes his men all about, transferring the sporting editor to the financial department, setting the live-stock reporter at work writing political editorials, and so on. Now it chanced that, in one of the mix-ups, the funny column fell to the lot of a reporter, who did not know a joke from a logarithm—who had no more sense of humor than a haystack. He was accustomed to obey, however, and he went to work making

jokes. His first attempts were something wonderful to read. People with pale faces stopped one another on the street, pointed out with trembling fingers these jokes, and asked if they really read as they had read them; and when they were answered that they did, they drew deep breaths of relief and passed on. Friends of the proprietor of the paper begged him to make a change, and declared to him that there were some things that the paper could not stand. But he adhered to his programme and kept the man at work, and in the course of time, the new funny man made jokes that were copied in other papers for jokes, and became an admired member of the National Paraphraser's Association.

WHY, SAYS THE INTELLIGENT VISITOR TO SIAM, DOES NOT SIAM make more rapid strides towards civilization than she does? Why are the people so neglected, and why are the officials of the country allowed their own sweet will in their dealings with the inhabitants? 'Tis true the government of Siam is an autocracy, but her present ruler is well known as a sovereign who holds most advanced and liberal ideas, and who desires, above all, the progress of the country. And if the King of Siam is such an excellent example of the autocrat, why are the many glaring abuses that exist in the country permitted to exist? Why, for instance, are the courts of Siam allowed to remain in such an unsatisfactory condition, making it utterly impossible for the inhabitants to obtain justice or escape from oppression? This, says the intelligent visitor, is surely the fault of the King. But here the intelligent visitor is totally wrong.

The King of Siam is one of the most honest and upright men in the country, thoroughly alive to the need his country has of reforms, and only too eager to carry them out if he could. But to carry out his wishes he requires ministers, and it is here the trouble begins. No matter how determined a king may be to carry out needed reforms in his country, unless he is ably seconded by the officials to whom he entrusts the enforcement of his orders, all his good will is practically useless. He may be energetic and personally superintend the execution of many of his decrees, but once the eye of authority is removed, things take their old course, and the second state often becomes worse than the first. And here lies the fallacy of a statement which is often made, that an autocracy is the best form of Government, if the autocrat be a good one. Under an autocracy a large and powerful official class grow up, who, whatever hates and intrigues they may have among themselves, fight in solid phalanx whenever their privileges are attacked. Against their arch enemy, Reform, they stand firmly together, and combine to maintain their system with all its abuses and privileges, and the sovereign may change his officials as often as he likes, and still he is confronted by the same difficulty. For, being compelled to choose his men from the same charmed circle, he soon finds that they are possessed of the same vices, and that new and old alike are bitter enemies to reform. Siam is cursed with a swarm of officials of this class, that, fastening themselves leech-like on the body of the country, drain its very life blood. This vast army of Siamese officials, together with its relations and dependants, lives on the labor of the common people; and it is owing to this cause, and this alone, that Siam, despite her great natural advantages of soil, climate and situation, remains devoid of

wealth. It is to this cause alone that the poverty of the people is due. The busy working bees must keep up an immense army of drones in such luxury as the country affords, and there is no inducement for them to store any honey, as the drones are ever on the watch to consume it. Of course, there are honorable exceptions among the Siamese Ministers, men whose efforts are untiring for the welfare of their country, and to whom much of the present progress of the country is already due; and we can only trust that the few honest advisers of His Majesty may long continue to defeat the miserable intrigues that are being constantly formed to hound them from office. The country itself is rich and productive, but until the present race of officials is removed, it will never be prosperous; and to all schemes of reform that His Majesty may have in his mind, we are afraid he can only utter a sad and melancholy *non possumus*. The officials are too much for him. And there are only two ways by which this race of parasites can be destroyed—either by internal revolution, or pressure from outside. Revolution in Siam is impossible, for many reasons. The people do not yet know their power, or the need of combination against their common enemy. They are too ignorant as yet of their own rights and privileges, too accustomed to the goad to think of kicking against it. And even if they combined and rose in revolt, the officials are far too strong and numerous for the commonality to have any hope of success against them.

There remains, then, but the remedy of pressure from without—by far the best and most effectual remedy in the present state of the country. Whether this comes from her mighty neighbour on the west, or from her powerful friend that is steadily crowding her on the east, or by a combination of the two, is a question that will be answered in the not far distant future.

Already the political horizon is becoming clouded, and when the storm breaks, it is not on her huge army of sordid officials that Siam can depend, but on the loyalty and affection of the masses of her people, whose interests are now being so ruthlessly sacrificed to the multitudinous herd of grasping officials that drain the nation's resources; it is for the neglected peasants of the country that Siam must legislate, not for the human parasites that will be the first to desert her in her hour of need.

A TALE OF A BANK CLERK.



ONCE there was a man. He was a clerk in a bank on two hundred rupees a month, and his name was John Smith. At a Director's meeting one day, after the discounts had been passed upon, and the portly Directors were laboriously getting up to go, the President, who had the ablest and most expansive vest of any of them, stopped them.

"By the way," he remarked, "I have a note from John Smith, one of our young men, you know—some of you know him—but I must have lost it. Anyhow, he wants his salary raised. Says the business of the bank is four times what it used to be, and his work has increased accordingly. Says with increase in the amount of money handled comes increase in the strain on his integrity. Seems to think he ought to be paid for not robbing us.

Besides, he says he can scarcely keep his family on his salary. I suppose I can answer it without calling another board meeting," he concluded facetiously.

"Tell him he oughtn't to have such a big family," suggested one.

"Quote the law against embezzlement to him," said another, and so on, as they buttoned their overcoats and went out about their business.

By and by John Smith got a note like this, signed by the President, and written on the note-paper of the bank, bearing the imposing array of Directors' names in neat engraving at the head of it:

"MR. JOHN SMITH—*Dear Sir:* In answer to yours of even date, I am instructed by the Board of Directors to say that they cannot agree with your view of the case. It is true that your work has largely increased, with the growth of the bank under its present successful management. But it is no more than you are able to do, and no more than we can find others to do for the salary we now pay you. The other phase of the matter you present—that we should pay you for the moral wear and tear incident to resisting temptation to steal, as well as for the physical and mental work you do—has no weight. Our relations, however pleasant personally, are purely a business affair on both sides. We pay you so much money for so much work. Your honesty is presumed. If you should prove dishonest, we would discharge you, and the law would send you to prison.

"With your family affairs we have nothing to do; but I may suggest to you that careful economy in small household expenditures will result in an annual saving which will perhaps surprise you. Without referring especially to you—for I never endeavoured to pry

into your private affairs, nor inquired how you lived—I may say that, in my opinion, the prevailing tendency of young people now-a-days is to live too high, instead of being careful to lay up something for a rainy day. Yours truly, &c.”

The Directors hadn't been in session long the next day when John Smith opened the door, handed in a slip of paper, and walked back to his desk. There was silence for a minute, then a murmur, then the clerks outside heard a clatter of moving chairs in the board-room, and then the door opened and two or three voices called —“Smith!”

“In a moment,” answered Smith, cheerfully, laying a blotter between the leaves of the book he had been writing in, and carefully tucking the pen behind his ear, as though he were making his toilet.

“What do you mean by this?” they demanded, when he appeared in the Directors' room. “Telling us there is only Rs. 21,744 available cash, and suggesting that we get some for the counter.”

“It's so,” said Smith, “and I thought you ought to know it before the money is all chequed out. The bank oughtn't to have to close its doors in the middle of the day.”

“But according to your statement of yesterday, and your showing of to-day's business, there ought to be Rs. 3,97,479. Where is the balance? We were just discussing an investment for it.”

“I've invested it myself,” responded Smith coolly, “in a safe place—Rs. 3,97,474. The other five rupees I took for street-car money.”

“You what?”

“I stole it, in plain English. When I got this response to my note to the President, I—but, really, I must renew my suggestion about the advisability of getting some cash on the counter. You are very short, and you ought to attend to it at once.”

“Two of the Directors drew their cheques on other banks and sent them out, although the signatures were very shaky, and then, quite at his ease, Mr. Smith leaned up against the carved mantle-piece, read the President's note refusing his request for an increase, and went on:—

“When I got this note, it set me to thinking whether, as our relations were a purely business affair, I couldn't do better than go on as I had been doing. There was Rs. 3,75,530 in convenient shape that I could get my hands on. I might have skipped to Chandernagore with it, but I don't like the climate. I took the money away with me, and concealed it”—pausing for a moment and smiling down into their eager faces, “in a place known only to myself. I shall give myself up, and as our relations, in the language of the President, have been ‘personally pleasant,’ I will save you the expense of a trial, by pleading guilty. The maximum sentence for my offence under the law is ten years. With the commutation off for good behaviour, that will be about eight and a half years. It will be dull, but I will not be idle. I have never had leisure to cultivate the graces of the mind. I have a taste for music. I will cultivate it. I will book myself up in the polite sciences. I will learn a modern language or two. I am thirty-one years old now. When I have served my term and am clear of the law, I will come out of prison thirty-nine years old, with a cultivated mind, and a comfortable fortune awaiting me. I can afford to go away, to tra-

vel in foreign countries and enjoy life. Of course, I will lose the interest on my Rs. 3,75,530 while I am in prison, but if I were to live on air, and go naked, and save all my salary, I wouldn't have one-fiftieth as much at the age of thirty-nine. On the whole I think I have made a good speculation. Don't you?"

The opinions of the Directors were not very coherent just at the moment. They made various appeals to him, on the confidence they had had in him, on the good name he bore, on the dishonor he would incur, etc., but he responded that all these had not helped him to an increase in salary, and relentlessly quoted the language of the President's note to him, that 'their relations were purely a business affair on both sides.'

Finally he said:—

"Our relations have been 'personally pleasant,' and I have no unconquerable desire to spend the next eight and a half years in jail. I will make you a proposition. If you will sign a bond not to prosecute me, and publish in the daily papers a set of resolutions setting forth that whereas your valued and trusted employé, John Smith, by the receipt of a legacy from a deceased relative has been relieved of the necessity of further service, resolved, that you part with him with extreme regret, etc.,—if you do this, I will bring back Rs. 2,50,000 and content myself with the balance. The interest will make up a good part of the loss to me."

It was hard to give up Rs. 2,50,000 and hitch to it a set of resolutions, complimenting the thief, but it was a choice between getting half the loaf or nothing. Was the satisfaction of sending him to prison for ten years worth Rs. 25,000 a year to them? They figured on it, and agreed that it wasn't. They accepted his proposition, drew up the bond, and signed it.

"You can get the resolutions in shape by to-morrow," he said, "and have them ready when I bring the money. It would scarcely be delicate for me to be present when they are adopted."

"Couldn't you bring it to-day, Mr. Smith?" asked the President, in a perspiration.

"No, I haven't time to go after it. The work at my desk always keeps me busy until the hour for closing the bank. You will have to trust me till to-morrow, and as by signing this bond you have committed yourselves to the compounding of a felony, I guess I can trust you—even as a purely business affair."

They were all on hand early next day. Smith, the cashier said, not without some surprise at hearing the President inquire for him as "Mr." Smith, had gone out to get his lunch. He was asked for half a dozen times before he came. Every few minutes the door of the Directors' room would open, a perspiring face would be thrust out, and Smith would be inquired for. Then the face would be withdrawn, and the Directors would fall to discussing whether, after all, Smith hadn't taken their bond and given them the slip. At the stroke of twelve the door opened, and Smith walked in. He picked up the resolutions, read them with approval, and with a "Thank you, gentlemen; this is handsome," he handed a package to the President, saying:—

"Here is your money."

Then he took his former stand by the mantelpiece, and watched their eager faces while they bent over to count it.

"Why, it's all here—you've brought it all back——"

"I never meant to steal it," said Smith, coolly. "I made you believe I did, merely to convince you that you were conducting your bank on the wrong principle, in keeping a man on a starvation salary with a fortune within his grasp. I wanted to make you understand that there is something more in the relations between a bank and its trusted employés than cold business. I suppose you will have no further use for me. I am ready to turn over my books as soon as you name my successor. He will find them all right. Good-day."

He walked back to his desk. Pretty soon they called him again, and the President made a little speech. He said the lesson had been an unpleasant one, but they were disposed to take it in the spirit in which it was given. Perhaps he was right. They had no desire to punish him, but—and here he hesitated and stammered a little—they were also unwilling, that is to say, they had no desire, to keep a financier of his ability in the humble capacity in which he had hitherto been employed. Therefore, one of their number, Mr. Wilkins, who was the agent of an Insurance Company, at a salary of Rs. 3,000 a month, had decided to resign that position, and would have Mr. Smith appointed his successor. Meanwhile, Mr. Smith could take a vacation of two weeks.



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THE FALL OF IMPHAL.

NO. 1.



SINCE the receipt of the first instalment of bad news from our North-Eastern frontier, public attention has been fixed upon that remote corner of our Empire with painful intensity. We now see that despite the hopes of the ultimate safety of the captives indulged in by one and all, but scarcely believed in by even the most sanguine, the first sad news that reached the public was correct. The Government *may* have had good reasons of its own for suppressing the news of the disaster, but we now know for a certainty that it was in possession of the main facts, at least, far in advance of the general public. We further know that at least three regiments had been selected and warned for service, and their officers in receipt of their letters of instruction, before the public knew anything about the matter, and no thanks are due to the Government or to any of its officials that the news, bit by bit, was allowed to leak out. The first public announcement of the disaster, in this city, was made in a "special" issued from the office of this paper on the afternoon of the 30th March. It was at about eleven o'clock in the forenoon of that day that we first heard, from a private but too authentic source, not only of the disaster that had befallen our arms, but also of the massacre of the Chief Commissioner of Assam and other British Officers. Loth as we were to publish such startling news without due authentication, we took every precaution to verify the statements made to us, and our final authority for the information contained in the "special" was a high Government official in the Military Department, to whom we applied for further information than that we possessed at the time. At 3 P.M., the same day, we issued our circular to all clubs, messes, public places, and a large number of

private houses in the European quarters of the city. While we were enabled to deny the truth of some of the alarmist statements that were, even then, gaining currency—such as that to the effect that Miss Quinton and Mr. Quinton, junior, were among the slaughtered,—we



THE LATE MR. JAMES WALLACE
QUINTON, B. A., C. S. I.

were induced to discount the news regarding the massacre, although the victims had actually been murdered some days previous. On the following morning the Calcutta dailies came out with the news. The *Indian Daily News* gave no more than had been contained in our special, while the *Statesman* merely recommended extreme caution in accepting the 'rumours.'

And so things went on for several days. Every morning saw some fresh rumour started regarding the fate of the captives, but still there was "no definite news" that could allay public anxiety or confirm the rumours to which the papers were too ready to lend currency. On the 9th April, however, the Government was in receipt of news which, unfortunately, left no doubt as to the fate of the captives.

But while we in India were being kept as far as possible in the dark, both Reuter's Indian Agency and the *Times* correspondent in Calcutta were evidently allowed access to information which was denied to the Indian Press. In some cases the news was exaggerated, but its main features were correct. Thus the telegrams to the London *Times*, dated Calcutta 30th and 31st March, contained a number of items of general interest that were not known in India until days afterwards. But with all the information so liberally supplied to them, many of the English papers were unable to make intelligent use of it, and the conflicting accounts not only of what had actually occurred, but as to causes, personalities and history, must have sadly puzzled the average commercial Britisher, as over his matutinal toast and eggs he struggled to ascertain who really was the "Iobraj," who the "Senaputty" and who the "*de facto* ruler."

The full details of the massacre of the unfortunate victims yet remains to be told. Probably we shall never know the real circumstances under which the Chief Commissioner and his brave party met with their deaths, although we have the satisfaction of knowing that they sacrificed their lives to their sense of duty. It has been, in fact, stated that Mr. Quinton might have saved his own life, even after the massacre had commenced, but that he refused to treat with murderers. This statement conflicts with others which seem to point to the fact that Mr. Quinton was the first to be butchered. It is, however, probable that none but Munipuris were present at the time, and their statements will of course be colored to suit their own purposes.

The latest news we have received up to the time of writing is that our Columns have arrived within striking distance of the capital, and we hope to be able to add, before we go to press, that the chastisement of the Munipuris has commenced in right earnest. It is to be hoped, for more reasons than one, that the reported death of the Commander-in-Chief of the Munipur forces—the Senapati as he is called—is untrue. There are strong reasons to believe that the massacre, though perhaps not actually planned in Calcutta, was known as about to take place if opportunity offered. To those who understand with what amount of secrecy the Mutiny of 1857 was planned, and how rapidly information was circulated amongst the disaffected troops, it will be no matter for surprise that the same thing, in perhaps a lesser degree, so far as we at present know, has been again carried out, and doubtless both the Senapati, and Kula Chandra Singh, the present Maharajah could, if captured alive, afford some very interesting information that would tend to set the Government of India thinking. They might, for instance, throw some light upon the despatch of that mysterious telegram from Calcutta to Munipur, in which it was stated that “a big tiger would be shortly killed.” We notice that it has been ascertained from Mr. Grimwood’s diary that some days before Mr. Quinton’s arrival, considerable excitement was caused among the Munipur chiefs by the receipt of some such telegram, although Mr. Quinton maintained the greatest secrecy regarding his mission. It is therefore plain that some of the natives in Calcutta were not only aware of what was going on in official circles, but were also interested in conveying the information to the Munipuris. The question to be solved is, how much did they know and from whence did they derive their information. Among a people such as the Munipuris it would take very little ‘priming’ to arouse the worst passions, and while allowing that, on occasions, they have afforded valuable aid to British subjects at critical periods—as in 1879, when they were instrumental in relieving the garrison at Kohima besieged by the Aregami Nagas—we must not overlook the fact that they were then fighting against their natural enemies, the Nagas. The past history of Munipur has been one of constant feuds, and wars of the most savage and revolting type. We see it stated that our own relations with the State began at the time of the first Burmese war, in 1824, but they actually commenced from a much earlier date, for as far back as 1762 a treaty was made with the Rajah against the Burmese, although it was not until 1835 that a Political Agent was appointed, whose duties had chiefly to do with freedom of trade, and intercourse

with the neighbouring wild tribes, such as the Lushais, Kukis, Sutis, Nagas, &c. The proximity of these tribes and the savage character of the Munipuris precluded the possibility of their living in peace, so that from the time we first knew the country, barbari-



THE LATE LIEUTENANT COLONEL C.
MCDOWAL SKENE, D. S.

ties of all kinds seem to have been the rule, and to have been unremittently practised. Sons murdered fathers, and brothers murdered brothers without a single trait of heroism to relieve the dark record of treachery and bloodshed. Even since 1887—the year in which the ex-Rajah Sur Chandra Singh was publicly installed—the history of Munipur is prolific in revolts. There was one in that year instigated by the principal judicial officer in the state. This was easily quelled by the Rajah's troops, and the instigator was shot through the head while attempting to enter the palace. There was another outbreak in the same month which was suppressed by British troops and the frontier Police. During 1888 and 1889 there was no disturbance of any note, but last year the ruling Rajah was rudely deposed and expelled the State, and since last September he has been living quietly in Calcutta. In this connexion we must say that the non-action of the Government of India was ungenerous and, as events have since proved, gravely reprehensible. The ex-Rajah in alluding to his deposition says: "I was recognized as rightful Ruler of the state by the Paramount Power, to whom I had rendered some valuable services, and who had several times acknowledged my loyalty." Such being the case, we altogether fail to understand why the Government allowed six months to elapse before moving in the matter, and then only moving to the extent of ordering the arrest of the Commander-in-Chief. In the absence of any explanation on the part of the Government as to the immediate cause of Mr. Quinton's disastrous attempt to seize the person of the Commander-in-Chief, it would be unwise to offer any criticism as to the motive. Assuming, as we have every right to do, that it had no direct connexion with the revolution in September

ties of all kinds seem to have been the rule, and to have been unremittently practised. Sons murdered fathers, and brothers murdered brothers without a single trait of heroism to relieve the dark record of treachery and bloodshed. Even since 1887—the year in which the ex-Rajah Sur Chandra Singh was publicly installed—the history of Munipur is prolific in revolts. There was one in that year instigated by the principal judicial

last, there is no reason apparent ; but the Government could hardly have acted as it did without cause. We neither know what that cause was, nor do we know what information was supplied to Mr. Quinton by Mr. Grimwood regarding the state of affairs at Manipur, to induce the former to attempt so hazardous a task with so small a force.

Amidst the tale of horror attached to the massacre and the events that followed, two incidents stand out in bold relief from their dismal surroundings, as showing the courage and resource in emergency which has always been characteristic of the British race. We allude, of course, to that plucky Englishwoman, Mrs. Grimwood, who, in the words of a correspondent "tended the wounded amid that hailstorm of shot and shell, who never flinched through that awful sixty hours' march without food or sleep, though marching some thirty miles with bare feet, and who arrived at Luckipore, I am told, looking very little the worse." Also to the gallant stand made by Lieutenant Grant at Thobal against overwhelming odds. Throughout the dreary march after the Residency had been abandoned by Captain Boileau's party, Mrs. Grimwood, rather than impede the progress of the party in even a slight degree, insisted upon walking, and during the first stage of the retreat she acted as guide, in which capacity her knowledge of the country was invaluable. The gallant little party, numbering less than 200, had continually to defend themselves against the attacks of the enemy, who harassed them constantly until they fell in with Captain Cowley on the 26th March. Mrs. Grimwood throughout this painful journey showed true 'grit,' and no one will begrudge her the title bestowed upon her by some of the papers, *i.e.*, "The Heroine of Manipur." Nor will anyone who admires pluck and resource be found to withhold the meed of praise so justly due to Lieutenant Grant, although we notice an unworthy tendency in certain quarters to draw invidious comparisons between his exploits and other equally noteworthy feats of arms. We should be sorry to have to confess that such daring deeds in the British army were the exception and not the rule, but what we do say with regard to Lieutenant Grant's brave stand is, that while many men might have done less, no man could possibly have done more. The occupation of Thobal on the 31st March, after he, with his small band of 80 native troops, had driven out the garrison numbering over 800 men, was, in itself, a feat to be proud of. Still more so was the plucky defence of a mud fort, in which the defenders, numbering 80, almost without food and short of ammunition, withstood for seven days in succession, the fierce assaults of a savage foe, whose numbers have been variously estimated at from two to three thousand with field guns. Amid the excitement attending the advance of our troops on the capital little attention has been devoted to individual acts of heroism ; but the story of Manipur has yet to be told, and high amongst those conspicuous for dauntless courage during a critical period will stand the names of those mentioned above.

THE CAPTURE OF IMPHAL.

Late on the evening of the 28th April, the anticipated news of the capture of Manipur was received in Calcutta. The Kohima, Silchar and Tammu columns met, as arranged, at the capital on the

morning of Monday last, but found the birds flown. The enemy made even less resistance than was expected, the Kohima and Cachar columns meeting with no resistance after entering the valley; although the column advancing from Tammu, under General Graham, had some severe fighting near Pallel, sixteen miles to the southward of Imphal. This has been the only chance as yet afforded in fair fight of inflicting anything like chastisement upon the enemy. The latter, to the number of about 1,000, were found occupying an earthwork about 5 miles north of Pallel. They were strongly posted, and the nature of the ground surrounding the earth-work was such that the advance was difficult. But "the kookries of the Goorkhas thirsted for blood." With the slaughter of their comrades fresh in their minds they stormed the earthwork, the guns meanwhile, shelling the work from a hill 1,000 yards off. Almost every man found in the earthwork was killed in the hand-to-hand encounter that ensued; those who managed to get away being killed by the mounted infantry. The enemy fought stubbornly, which must have proved satisfactory to our troops, whose only fear appeared to be that they would not show fight at all. We regret to say that our casualties were heavy; Captain Drury, Captain Carnegie 2/4th Gurkhas, Lieutenants Grant and Cox of the 12th Burma Infantry, Subadar Major Kalpatti Gurang of the 2/4 Gurkhas, and Jemadar Berbul Nagerkati of the 43rd Gurkhas, one havildar, one Naik and two sepoy of the 2/4 Gurkhas, and two sepoy of the 12th Burma Infantry being severely wounded, and Jemadar Adjutant Kira Ram and sepoy Dalia Thapa of the 2/4 Gurkhas being killed.

We cannot afford, however, to rest satisfied until the Maharajah and the Senapati are in our hands, alive or dead—the former for preference. Like the curs they have shown themselves throughout this business, they were prompt to take to their heels when immediate danger threatened them. They are reported to have fled to the north-eastward, which, as a glance at the maps will show, is a very mountainous region. If once they cross the frontier into Burmese territory they will probably not remain long at large; but the task of pursuing them into the mountain fastnesses will prove exceedingly irksome work.

When our troops occupied Imphal they found the Palace and the Fort entirely deserted, having evidently been gutted by the Manipuris after the flight of the Maharajah. The surrounding country was also deserted. General Collet's head-quarters are now in the Palace, while the other columns are quartered in the Fort. What will tend to exasperate our men more than all the resistance they might have met with is the fact that the heads of Mr. Quinton and the other members of the slaughtered party were found lying in an enclosure outside the palace, no attempt having been made to give them even a hole in the ground and a covering of earth. So long as the prime movers in this most atrocious outrage remain at large, our victory—such as it is—is a barren one.

APEX.

THE OPIUM QUESTION.

"The Opium Revenue has no doubt fallen largely, and at this moment there are no strong indications of a recovery. On the other hand, the fall, up to date, has already been discounted, and provision made to meet the consequent loss of Revenue. As the fall has been so great, we may fairly hope that, for the present, we have seen the worst."—SIR DAVID BARBOUR, in Financial Statement for 1891-92.



FROM the above quotation it is evident that the adoption of the motion brought forward by Sir Joseph Pease on the 10th April, that "the Indian Government should cease to grant licenses for the cultivation of the poppy, and should stop the sale of opium in British India," must have proved as great a surprise to the Government as it undoubtedly did to the general public. Of course, it was pretty generally known that the 'illogical' party in Parliament was about to make another onslaught upon our opium policy, for on the 17th February last Sir Joseph Pease gave notice in the House as follows:—"To call attention to the Indian opium traffic, the cultivation of the poppy in Bengal, and the manufacture of opium by the Government, and its sale under Government license; and to move—That this House is of opinion that the system by which a large portion of the Indian Opium Revenue is raised is morally indefensible, and would urge upon the Indian Government that they should cease to grant licenses for the cultivation of the poppy in British India, except to supply the legitimate demand for medical purposes, and should at the same time take measures to prevent any increase in the production of the Malwa opium." Sir Joseph Pease obtained for this motion the fifth place on the orders of the House of Commons for Tuesday, the 17th March, but it was not reached on that date, so Sir Joseph had to curb his impetuosity until the 10th of the following month, when the motion, greatly to the surprise of Sir Joseph himself, and his followers, was carried, in a small House composed of 290 members only. Of course on such a division no action can be taken, and there is little reason to doubt that Mr. Smith had the majority of the House with him when, in replying on the 13th April to Dr. Cameron's question whether, "in view of the vote taken on Friday on Sir Joseph Pease's motion for the suppression of the opium trade in India, Government would appoint a Royal Commission to enquire into this subject," he said that the vote "did not express the full sense of the House, and that Government would take no action until the whole question was submitted to Parliament."

We do not fear the result of such an appeal to the intelligence of the House. It would probably give an entirely different aspect to the

whole question, and lead to the crushing defeat of the prohibitionists. There is more cause, however, for apprehension as to the action that the Chinese themselves may take in order to secure for themselves a constant supply of the drug, should the Indian supply cease. The growth of the poppy in China must now be considered as a present fact, having a most important bearing on the future prospects of the monopoly. China has more than once threatened to strike at the root, of our revenue, by encouraging to the fullest extent free cultivation in her own territory. The fear, on our part, that such would some day become an accomplished fact, is an old fear; and leaving moral considerations aside, it would be a good thing for India, from a purely financial point of view, if she could afford to relinquish her opium revenue. It is a sword of Damocles, always suspended over our heads, and rendering a secure enjoyment of the monopoly revenue impossible. Since the Crown assumed the direct Government of India, almost every Finance Minister has, year after year, pointed out the risk of our losing our opium revenue, owing to Chinese competition. In fact, it has frequently been pointed out that we are living in an almost abject state of dependence upon our opium revenue. And when we consider that the high price Indian opium has commanded has been mainly the result of two causes—the superiority of the article, and the prejudice that, at first, existed among the Chinese against raising it themselves—but that *now* China possesses the potentiality of increasing her native supply to an indefinite extent, as well as of improving its manufacture, it may easily be seen in which direction the chief danger to our opium revenue lies.

Although previous to 1858, the year in which the British Crown first took over the direct government of India, the British Parliament cannot plead entire irresponsibility for the opium traffic, it will be sufficient for our purpose if we go back only to that period, for previous to that time the revenue from this source was, comparatively speaking, small. A report published at the time, says:—"The monopoly of opium in Bengal supplies the Government with a revenue amounting, in sterling money, to £981,293 per annum; and the duty which is thus imposed amounts to 301 $\frac{3}{4}$ per cent. on the cost of the article. In the present state of the revenue of India it does not appear advisable to abandon so important a source of revenue, a duty upon opium being a tax which falls principally upon the foreign consumer, and which appears, upon the whole, less liable to objection than any other which could be substituted."

From the day the above report was issued, up to the present time, there has been no change in the opium policy of the Indian Government, and far less are we prepared, now, to relinquish this source of revenue than we were in 1858, when the amount derived from opium was less than £1,000,000. The key-note was struck, and has been steadfastly adhered to in spite of many and powerful attempts to do away with the traffic on purely moral grounds. Mr. Gladstone some years ago denounced the traffic as immoral, and a disgrace to any civilized nation in the world; but even he was afterwards forced to admit, that however much we might deplore the fact that the opium duties afford an undoubtedly undesirable source of revenue, we could not afford to alter existing regulations, for the revenues of our Indian

Empire are dependent on opium to a greater extent than upon any other produce, manufacture or tax, land revenue alone excepted. And although the busy-bodies, and notoriety-hunters in Parliament may be able to work incalculable harm, and to sadly embarrass the Government of India at a time when all its energies are required in the maintenance of order among our frontier tribes, they altogether fail to show that China would, in any degree, be benefited by the prohibition of opium cultivation in India.

In dealing with this phase of the question, the conjectures upon which to a certain extent we have to fall back are justified by the course of past events, and taking this as our standard of judgment, it does not appear likely that even total abolition of opium cultivation in India would be beneficial to China in any other way than to increase her own revenue by the cultivation and sale of the drug on behalf of the Chinese Government. In the days of the East India Company, when the export of opium commenced to increase, and when two or three thousands of chests took the place of two or three hundreds, the attention of the Chinese Emperor and Mandarins was drawn to the increasing consumption of the drug. They enacted very severe laws against it, and even went so far as to make opium smoking punishable by death. With what result? Merely that opium was smuggled into the country, and the illicit traffic was connived at by the very officials who were sent to put a stop to it. Moralists—such as Sir Joseph Pease—would account for this by saying that the Indian Government was the cause of this state of affairs, and that it carried on its trade through the medium of Chinese smugglers. Such was very likely the case; we do not attempt to deny it; but mention the fact merely to show that the Chinese were determined to have opium, no matter how it was procured, despite laws and Emperor. Since the days of John Company, however, things in general have altered very materially in China, and at the present time the quantity of opium manufactured in that country, offers no despicable competition to Indian opium, while in many parts of the Empire, the home manufactured opium has completely ousted the Persian drug from the market. And this competition has been brought about in spite of laws framed to prevent it; for when the traffic with India was, after the "Opium War," legalized by the Chinese, strict orders were issued against the cultivation of the poppy in China itself. But to-day home-manufactured opium can be obtained in any town in the eastern portion of China, where the cultivation and manufacture are chiefly carried on, and in the west, although the cultivation is not carried on to so great an extent as in the east, it has, within the last few years, been very largely extended. In fact, the only hold we have upon China, with regard to our opium, lies in the superiority of the drug we manufacture. Then, again, the opium of Persia and Asia Minor is still in the market, and this, in conjunction with the indigenous article, together with the supply in hand, would have to meet the demand, were the ill-advised motion of Sir Joseph Pease enforced. The price of opium would, of course, rise considerably for the time, until steps had been taken to supply whatever deficiency there might be in the supply. Meanwhile, the poor, who are accustomed to use the drug, but would be unable to pay the enhanced price, would die off in thousands for want of it, while the rich would be able to indulge themselves as usual, but with a very

inferior substitutes for the Indian article; until, as the supply increased yearly, we should have to stand by and see the abuse carried on as freely as ever, but without the restrictions which have hitherto kept it, to a certain extent, within bounds; while, at the same time, we should see, in the increased discontent of the flattened-out tax-payer, both European and native, the folly of attempting to govern a huge country on sentimental principles, and without consideration as to whence the necessary cash is to be derived.

Upon the fiscal results of the abolition of the opium revenues, to India, we need not dwell. They are well known to both the Government of India and to the tax-payer upon whose pocket and good nature the Quaker moralist is making so severe a raid. The opium revenue has, during the past twelve years, steadily declined, and, as the following table shows, has decreased during that period by nearly three millions sterling:—

				Gross Revenue,	Nett Revenue,
				Rx.	Rx.
1880-81	...	...	...	10,480,051	8,451,167
1881-82	...	...	...	9,862,444	7,803,001
1882-83	...	...	...	9,499,594	7,210,084
1883-84	...	...	...	9,556,501	7,700,807
1884-85	...	...	...	8,816,469	5,849,440
1885-86	...	...	...	8,042,515	5,884,625
1886-87	...	...	...	8,942,976	6,213,845
1887-88	...	...	...	8,515,462	6,090,758
1888-89	...	...	...	8,562,319	5,964,365
1889-90	...	...	...	8,583,056	6,977,883
1890-91 (Revised Estimate)	...	...	...	7,875,000	5,680,200
1891-92 (Budget Estimate) ...	...	...	...	7,593,400	5,318,700

From this table it will be seen that the amount to be made good, if national bankruptcy is to be avoided, is Rx. 5,318,700—or, calculated roughly, four and a half millions sterling. In the Budget Estimate for 1891-92, the total Revenue is estimated at Rx. 86,025,300, and the Expenditure at Rx. 85,909,700. The estimated surplus is thus Rx. 115,600, which may easily be turned into a deficit of a like, or even a greater amount by the necessary operations against the Muni-puris, the trans-border frontier tribes concerned in the Miranzai uprising, and other border complications to which these operations may probably give rise. It is useless to propose increased taxation to meet such a deficit combined with the loss of the opium revenue, and we do not see how the expenditure can be decreased by anything approaching such an amount. The *Indian Mirror* as a matter of course advocates the restoration of the financial balance by wholesale reductions in expenditure, especially under the head of Home Charges. Our contemporary has evidently read history to very little purpose if his proposal is a serious one, and not one of those little flights of fancy in which he occasionally indulges. During Lord Mayo's viceroyalty, the most severe economies enforced in both the civil and military departments effected a saving of only £300,000. And the result of this saving, combined with an additional Income Tax, an increase in the Salt Duties of Madras and Bombay, and a large reduction in the expenditure on Public Works, only produced a total additional sum of £1,733,453, which, with the ordinary revenues, showed a surplus for that year of £118,668 only; a very small item compared with the amount that India is now asked to surrender, —off hand, and without a thought of the probable consequences.

It is gratifying to learn from the telegrams that, in common with the Anglo-Indian press, some of the most influential of the London papers are inclined to look upon Sir Joseph Pease's motion as an April Joke. Thus the *Times*, in discussing the vote, suggests that "Government should find occasion for settling whether the House of Commons is in earnest in passing the motion of Sir Joseph Pease." The *St. James's Gazette*, however, takes a more serious view of the case, and says that no such display of ignorance and hypocrisy has been seen in the House since the resolution repealing the Contagious Diseases Act was passed. On the other hand, two influential London papers, the *Daily News* and the *Daily Chronicle*, in discussing the question rejoice at the passing of the resolution; but, then, if we remember aright, it was these same papers that altogether refused to see the significance of the Ilbert Bill, and privately stated that, their policy with regard to this Bill having been laid down, they were not open to conviction, however strong the arguments against that policy might be. They confessed at the same time that they knew very little about the subject; and we have in our possession a letter written by a journalist behind the scenes, which shows that the London *Daily News* merely opened its columns to the Ilbert Bill controversy during an exceptionally dull season at Home, and when something of interest nearer home turned up, the Ilbert Bill was shunted, and the paper acted on the principle that a dog run over in Regent Street by a passing cab was of more interest to the British public than even a revolution and indiscriminate slaughter would have been if occurring in a remote part of the world.

The *News* says that "this unexpected success in the House must be vigorously pursued, as the present Government will probably not put the resolution into execution; but the Indian Government," it adds, "will regard it as a strong indication of feeling at Home on the matter." Evidently, however, the majority who carried the resolution are not so sanguine as to that "feeling at Home" as the *Daily News* would have us believe, and we are not at all surprised to learn that an addendum by Sir John Fowler to the motion of Sir Joseph Pease, requiring the Home Government to resimburse the loss that would be sustained by the Indian Government through the withdrawal of the revenue derivable from opium was 'talked out' in the House of Commons. The sentimentalists who try by exaggeration and clap-trap to influence the people of England to raise the cry against a policy that is of vital importance to India know better than to appeal to the pockets of their constituents, although willing enough to pose as philanthropists at another country's expense. They are silent as to how these opium revenues are to be made good, and they know full well that an appeal to the British tax-payer to "pay for their whistle" would rouse public opinion to such an extent, that it would, once and for ever, effectually settle the question as to whether the people of England sympathise with the ideas of men who, without regard to the affairs of our Indian Empire, commercial and financial, are determined to sacrifice the opium revenues, regardless of after-consequences.

But the majority of these philanthropists are not consistent. They try to play too much upon the presumed ignorance of the masses regarding foreign countries, while they would hesitate to deal with more pressing necessities nearer home. For instance, take

the 'Drink-Bill' of Great Britain. Though the Bible can be quoted in praise of the juice of the grape (in the same way as it is said that Satan can occasionally quote scripture to his own advantage); though poets of all nations have sung its joys, though it can plead immemorial antiquity, world-wide custom, and an unquestionable moderate use in its favor, yet the evils of intemperance among our own race are so flagrant that no one with a heart in his breast can fail to be staggered by the contemplation of them. Let, then, the philanthropists first look to the material they have close at hand for working up an agitation. It will not, of course, be denied that alcohol does infinitely more harm in one year than opium accomplishes in twenty. If the sentimentalists are really actuated by a belief that Englishmen are horrified at the "immoral traffic" we carry on with China, let them put that belief to the test by ascertaining whether, in their own case, Englishmen are equally sentimental and highly moral. Let them attempt to lay alcohol under a ban, to set their breweries and distilleries in a blaze, to pour the contents of their wine and spirit vaults into the Thames and the Mersey, to prohibit, absolutely, the most innocent use of intoxicating beverages in order to save the country from the unquestionably fearful consequences of their abuse. There are philanthropists and Christians who shrink from such a measure as impracticable, unwise, not the true Divine method of fighting against vice. But while not prepared for such decisive action where it is most needed, they will with easy conscience and without a thought of after-consequences, lead a crusade against a far lesser evil, and become most obtrusive in their morality where a foreign nation is concerned.

APEX.

POSTSCRIPT.—The above article was already in type when, by a telegram dated London, 21st April, the welcome news was received that, for the present, our Opium Revenue will not further be tampered with. Although this is nothing more than was anticipated it is reassuring to learn that Mr. W. H. Smith, in reply to a question, said that there was no prospect of finding time for a further discussion of the opium question. It was, he said, improper to suggest that the Government of India did not consider what passed in the House of Commons, but the full responsibility of governing India rests with it. Upon this Sir Joseph Pease announced that he would drop his motion. Mr. Smith further said that it was not intended to appoint a Select Committee to examine into the effects produced by opium on the health of those who consume it. We learn, too, that the *Times* has published a letter from Sir Lepel Griffin in which he denounces the action of Sir Joseph Pease in endeavouring to secure the abolition of the opium trade of India. Sir Lepel dwells upon the fiscal advantages of the opium tax, and says that "the loss of revenue from this source would either fatally compromise the Indian Government, or saddle the British tax-payer with an unbearable burden." We feel assured that the "British tax-payer" would never submit to the latter alternative, and a Government that seriously proposed he should would probably very shortly find itself in the shades of Opposition.

“ L I F E . ”

(No. II.)



N a previous article it has been shown that every mental idea is synthetic and must answer to a fact of experience. The mind, since its existence commenced on this earth, has acquired vast stores of knowledge. This knowledge is of a multifarious character, proving thereby the various experiences the mind has undergone. A portion of this knowledge, however, has been lost, partly for want of means to preserve it, and partly owing to the mighty revolutions of ages that have passed away. But a greater proportion has been expressed and represented in suitable symbols and carefully preserved for permanent use. The mind has now access to an immense heritage of useful knowledge with the additional prospects of its increase. New experiences result in new ideas and thoughts, thus adding to the previous stock of knowledge. With every addition to knowledge, the mind gains a proportionate increase of power over its environment, for knowledge is power. It is this cumulative mental power that has wrought the remarkable change that is now observable in human life, which is better protected and better controlled than ever it was before. Every generalized notion corresponding to a fact of experience, is constituted into a *law* of the mind, and the whole range of knowledge forms one continuous body or system of laws, by the aid of which the mind regulates its movements. The entire circle of knowledge may be divided into separate sciences, according to the different fields of mental exercise.

The following is a classification of the Sciences :—I.—Sciences *Theoretical*, which concern the *foundations* of knowledge, as discovered in the facts of nature.

1. The Logical Science, dealing with the laws of strict mental classification of all ideas, whatever.
2. The Mathematical Science, dealing with the laws of *number* and *magnitude*, viewed in the abstract.
3. The Physical Science, dealing with the laws of *Force* and *Motion*.
4. The Chemical Science, dealing with the laws of *definite Proportions* and *Combinations* of concrete forces.
5. The Biological Science, dealing with the laws of *Living Bodies*.
6. The Psychological Science, dealing with the laws of *Consciousness*.
7. The Historical Science, dealing with the laws of *Sequence* as illustrated in all matters of fact of the world.

II.—Sciences *Practical*, which concern the *application* of knowledge to the practice of life.

8. The Science of Language, dealing with the laws of *articulation* and *symbolic representation* of the inner workings of the mind, as a means of intercourse with other minds.

9. The Science of Commerce, dealing with the laws of *demand* and *supply*, according to which man secures and multiplies the resources, conveniences and comforts of life. This includes all the scientific arts.

10. The Science of Sociology, dealing with the laws of *government* of men in their relations to each other, having reference to their social tendencies. This includes the Sciences of Political Economy, Civil and Criminal Jurisprudence, and Morality.

11. The Science of Religion, which is a system of the highest freethought by which the mind seeks to escape from the trammels of superstition and custom, to unravel the mystery of existence, and to secure a life of perfect mental happiness.

This includes Philosophy and Theology.

The above classification does not claim to be an exhaustive one, and place must be reserved for new researches, new discoveries and new lines of thought. The connexion between the theoretical and practical sciences is most intimate, though for the purpose of classification they have been separated. The theoretical knowledge underlies the practical. Every department of knowledge as above described has a direct effect on the course of human life. The value of scientific knowledge is incalculable, especially in view of the incessant and inevitable struggle for existence. Man has to fight his way against various opposing forces. The earth must be forced to yield food, raiment and shelter; the sea must be subdued; and the sky must render useful services. In short, the whole of nature must be rendered subservient to man's purposes. Before the dawn of Science, the condition of man had not been very far removed from that of the beast of the forest, or of the fowl of the air. But now man must be congratulated on account of the rapid strides of improvement he has made in his method of living; and this progressive development of human life is due to no other cause than the degree of mastery acquired by the mind over the elements of nature. It is now proposed to discuss the science of Religion, a branch of knowledge which has the most peculiar and important bearing on human destinies. From a critical study whether of man in particular, or of man in general, the mind is convinced that religion has played, and is still playing, the highest part, and that it is the most potent factor in human life. Religion is the standard, the pivot, of every human life. It is religion that best characterizes and individualizes the mind. There is a system of thought of some sort or other, under the name of religion, propelling and guiding every human organism to its ultimate goal. On the hypothesis of the mind, it is hardly possible to conceive the want of religion in man. Religion is a generic term, there being many religions. There may be as many diverse systems of religious thought as there are individuals in the entire human family, both born and yet to be born. Every individual mind has its religion, its peculiar standpoint, from which to look at and solve the problem of existence for itself.

Every man claims, and exercises, the birth-right of freedom and strikes out boldly his own mysterious path through the labyrinth of existence. It is further to be remarked that, even in the same

individual, there is a frequent religious *change*. The resources of mind—its standpoints of vision—are multiplex, and the freedom of choice is not restricted to a few standpoints alone; but is as extensive as the mental phenomena. Every change of a standpoint, therefore, is a change of religion; every shade of religious opinion becomes crystallized into a system. Every system of religion serves as a peculiar weapon of attack and defence in the great battle of life. The struggle for existence is inevitable, and the fact of the survival of the fittest argues the great and imperative necessity the mind is laid under to seek to adopt that particular standpoint to which success of action is claimed. It is, therefore, possible and reasonable that a man may change or modify his system whenever it may be found open to grave doubts.

Again, even admitting the same standpoint, different individuals arrive at *different interpretations*, unless by common consent, or, under a process of coercion, they adopt one common system of interpretation. Thus the number of possible religions becomes inconceivably vast, and may be expressed as equal to the number of possible individual minds, having for its co-efficient the number of possible standpoints. Even the vast number of 33 crores of gods, according to the ancient Hindus, is insignificant in comparison with the number of possible religions conceivable by the mind in general. The multiplicity and diversity of religious systems may no doubt be detrimental to the synthetic and harmonious life of the human race, and may even result in a deadly conflict between man and man, and nation and nation. But there may be a cure for such an evil. There may be a unity in spite of diversity. The multiplicity and diversity of the mighty stellar systems need not be a hindrance to their regular movement. The secret of harmony reigning amidst the total plexus of the celestial systems has been discovered to lie in a *general law*, which, while allowing freedom of motion, binds or preserves each system in its respective orbital path. Under the government of the general law, collisions, whether accidental or otherwise, due to imperfect arrangement of systems, are unknown in the region of the stars. Similarly, in relation to the human race, there might be discovered a law of universal government. The following argument discloses a method of proof of the existence of a *universal government* over the empire of the human mind. It is a fundamental law of the human mind, that there is no fact of existence but is related to some other fact which in the order of sequence is either *pre-existent* or *co-existent*, and which is either *dependent* or *independent*. The character of independence may be described as *self-existence* and that of dependence as existence *derived* from some *pre-existence* which is *self-existent*. The following facts of experience are adduced in illustration of the above law :—

1. There exists the human mind with all its powers of analysis and synthesis.
2. There also exists space, which is an entity *independent* of the mind. The idea of space is not hypothetical but *fundamental* truly corresponding to a fact of experience. Space is *pre-existent* to the human mind, while it is co-existent and it is *self-existent* because it is *infinite, indestructible, unchangeable, indivisible* and *intangible*.
3. The human mind is a *dependent* existence, since it is not pre-existent, but only subsequent to space. The period of existence

as regards the human mind is easily computed, but defies all calculation as referring to space. The human mind is further dependent upon *space*, because it exists and derives its existence in the womb of space, from which there is no escape. Space is the inevitable concomitant of the human mind, though it may exist by itself alone. The human mind does not profess to be its own cause, nor does it pretend to the authorship of space; but, on the contrary, it has ever been at great pains to discover its source *in space*. Thus, with the existence of the human mind, is guaranteed the existence of space which is pre-existent and self-existent; while the mind is dependent, and seeks its source in space, which alone *must* account for the mind. Space, therefore, is *connotative* and implies a Power which is *self-existent* and *creative*. Space is no longer a mere *blank*, as popularly understood; it is a power, invisible, infinite, indestructible, unchangeable, indivisible, intangible and above all, *creative*. This power being the *ultimate* source, is also the ultimate rule of the human mind. Though this supreme unconditioned power has been recognized, in all ages, the frequent religious wars and the abiding religious animosities have been due to an imperfect comprehension and distorted views of its nature in relation to the conditioned human mind.

The science of Religion may at this stage be defined, with some degree of particularity, as that which deals with the laws of the *definite* relations existing between the conditioned human mind and the supreme unconditioned power. It is the grandest of all discoveries ever made by the human mind, *viz.*, the discovery that there is *supreme unconditioned* power which is the source and rule of all mind, all life, and all force. Any discussion relative to the unconditioned is possible from the standpoint of the human mind alone. All philosophical conceptions regarding that power can, at best, be but human. The charge of *anthropomorphism* against human conceptions of the unconditioned is, therefore, not only pointless and vain, but altogether unphilosophical in tone. Scientifically, all unknown must be reached through the known, the infinite through the finite, and the unconditioned through the conditioned. Consequently the conceptions regarding the unconditioned must be derived in terms of the conditioned. True, the unconditioned, considered as out of all relation to the conditioned, is unknown and unknowable; but viewed in its relation to the conditioned, as the relation of cause to its effect it is both knowable and known by the human mind.

The essential conditions of the human mind reveal the method of operation of the unconditioned one, and form the chain of connection between the conditioned and the unconditioned.

1. Consciousness is the primary condition of the human mind. It is the very quintessence of the mind. It is the active principle or power which exists. It is a single principle having neither parts nor magnitude. It is the interpreter of all facts of existence. No fact can be said to exist except in relation to the fact of consciousness, apart from which all existence is meaningless or is worse than non-existence. The principle of consciousness passes through various experiences, retaining its identity through all of them. It is highly communicative. Its dicta are, *I am, I classify, I appropriate*. The *I am* proclaims the grand fact of its existence as a power which classifies and appropriates all facts of existence. The *I am* is

independent of its experiences. As a principle of appropriation, the *I am* seeks for and delights in new experiences as it survives old ones. It realizes the joys and sorrows incidental to its existence. It exhibits marvellous tendencies to perpetuate its existence, to reproduce and multiply its kind and to create a sharp struggle for existence. It bears the burden of life and goes through various performances, as though it had been bound to live, as if it had a responsible share in the work of life. Its anxieties, cares, toils, and troubles in the race of life, its joys in contentment and its sorrows in privation, illustrate its principles of *appropriation*. As a principle of *classification* the *I am* is ever active in the construction of various systems of mental classification, thereby adjusting its relation to the surrounding world and enabling itself to succeed in the work of life generally. Every human organism is led on under some system of mental classification, projected and presided over by the principle of consciousness. While a few of such systems have been openly proclaimed and permanently recorded there are a great number of them never revealed but sadly consigned to oblivion.

2. The physical system as exhibited in the human organism is another necessary condition of the mind. It is a system of evolution, or, a process of origination and sustentation of consciousness. It is a concatenation of physical and chemical forces which, acting together according to a fixed law, evolve the human mind. But the law of evolution and the plan of the mind cannot be *inherent* in the forces themselves. The material forces are the same in all organisms. As a sage has remarked somewhere, "the same chemical lump arrives at the plant and grows, arrives at the quadruped and walks, and arrives at the man and thinks."

The cause of the *unlikeness* of forms in organisms must, therefore, be sought in an organizing principle or power ulterior to the material forces. The characteristic of matter, as ascertained by science, is *inertia*. The physical forces may, in spite of them, be combined into a system, or, be separated from their state of union. As each physical system grows in complexity, there is revealed a new co-ordinating principle or force which in its nature is totally unlike the other component forces. The human organism is most highly complex and all the various phases of the human life are inexplicable on the basis of the physical theory alone. On the contrary, the physical system of man involves and reveals an immaterial principal or power which must be taken as an important factor in the explanation of the human life. The mind is the highest organizing principle yet physically revealed. The creations of the mind, *viz.*, all the human modifications and conversions of physical forces, the discoveries of science and the inventions of the scientific art, conclusively prove the immense organizing power of the mind. There is an abundance of physical life exhibited in an endless variety of forms, but the human life has disclosed the greatest and highest organizing principle of all, called mind, which alone claims the power of scientific classification, utilizes physical forces, and accomplishes wonderful feats of originality. Man may be defined as *mind incarnate*. The mind, though it cannot be realized except in conjunction with the physical system, is yet convinced that matter is not its *primary* source, but only a secondary condition of its existence. The physical life of man is due to a

continuance of forces having the power of law of *consciousness* impelling behind them. The process of generation of the human child can only be explained by the co-ordination of the mind with other physical forces. The mind may lend an impulse to the physical forces or may effectively restrain them. In fact, many an unborn child could have breathed the physical life but for the persistent maintenance of celibacy by determined minds. Thus in the case of one set of physical phenomena, the collocations and movements of matter are due to, and are under, the direction and control of *consciousness*, while the material forces, in the absence of the co-ordinating force of the mind, exhibit a want of inherent capacity for working, and adjusting themselves into a perfect automation. But even in the case of those material phenomena where self-consciousness is conspicuous by its *absence*, the human mind is capable of interfering with their action and can exert the power and devise the means either to arrest or to help their course.

It has been said that matter is a double-faced something, "physical on one side and mental on the other." But it may be said with equal truth that mind is a double-faced something, spiritual on one side and physical on the other, because mind-force manufactures and exerts physical-force, as evidenced in the movements of organic bodies. As to the origin of matter: There is space *opposed* to matter. Now there are only two conclusions possible, one of which must be true. Either matter must account for space or it must have been evolved in space. To say that matter is the cause of space is to maintain that there was a time when space was *non-existent*,—a proposition which every experienced mind will at once repudiate. Space is not only immanent in matter but transcends matter beyond any conceivable degree and exists independently of matter. Where matter may be conceived to be non-existent, there is space existing. Matter is not co-extensive with space; there is *vacuum* in space, even frequently caused by the mind for scientific purposes.

Matter, therefore, is *finite* in amount, *changeable* in its state, *divisible* for the purpose of distribution, *moveable* from position to position, and is above all at the *service* of the finite mind. The conclusion is inevitable that matter with all its properties has originated in space, and must be accounted for *by space*. Mind and matter, while distinct in their respective properties, are both co-ordinate with each other and are *derived* from space. All *finite* existences are comprised under the two realms of mind and matter and point to space as the *ultimate cause* of them all. Space, therefore, is a power *self-existent, invisible, all absorbing, all creative, immanent in all and yet transcending all*. Men's minds must be disabused of the notion of *nothingness* commonly associated with the idea of space. The true significance connotated by the term space will in future be indicated by terms usually employed to convey ideas of similar import.

SCIENCE NOTES.



DISCOVERIES IN CLOUDLAND.

Blue Hill Meteorological Observatory, at the summit of Great Blue Hill, about ten miles south of Boston, Massachusetts, is fortunately situated for meteorological research. It is on the highest ground within ten miles of the Atlantic coast from Maine to Florida. The circulation of the air around Great Blue Hill is not influenced by irregularities in the surface of the surrounding country, nor is the situation of the Observatory too high to satisfactorily record the surface effects of great storms. The data already collected emphasize the subtle nature of storm disturbances as related to the higher regions of the air.

At the Blue Hill Observatory careful scientific tests have been applied, and the discoverers emphasize the fact, of which meteorologists are particularly conscious, that much of the failure to calculate the movement of storm centres is due to deficient knowledge of the air currents situated at a distance of from 20,000 to 30,000 feet above the earth's surface. The direction, height, and speed with which clouds are moving must, of course, be approximately known before any relation between cloud movements and storm progression can be discovered. The direction of cloud movements was measured by means of a mirror divided by degrees of arc. The velocity was found by counting the number of quarter inches through which the cloud image moved across the surface of the mirror. The movements of cloud shadows over known distances of the surrounding country were timed, and they practically verified the estimates made by means of the mirror. The cloudiness at night is recorded by means of an ingenious automatic photographic apparatus called the "Polestar recorder." This is an instrument in which a telescope and camera are so combined that the trail of the Polestar is photographed. Passing clouds are revealed by the fact that the photographic impression of the star's course vanishes. Estimates are then made on the basis that the amount of cloudiness in the region of the Polestar represents the average amount over the whole sky. An alarm clock closes the shutter of the camera at dawn.

Several meteorologists believe that the next great advance in meteorological science must come from the study of the upper air currents. It is thought that the results already obtained from the study of the highest clouds indicate that general weather conditions can be predicted a week ahead. This possibility is due to the fact that the upper currents are clearly not governed by local causes, but by general causes already becoming definitely known as acting over a wide area. The accumulation of heated and moist air over vast extents of territory causes a disturbance which is revealed first by the swifter moving upper currents.

Mr. Clayton's observations during three years at Blue Hill Observatory show that the most cloudiness occurs at sunrise and at 1 P.M., and the least at 9 P.M. This relative daily cloudiness applies to all cloud levels, from the height of Great Blue Hill (635 feet), which is often enveloped in clouds during rain, to the highest clouds, which float at a height of about 30,000 feet as usually given, and of 40,000 feet as claimed by Poey and Flammarion. The clouds one mile high are greatest in quantity at 1 P.M., while the clouds five miles high are greatest in quantity between 4 and 6 P.M. In other words, the cloudiness, as indicated by the averages, progresses toward higher levels later in the day, disclosing the effect of warm ascending currents. In fact, changes in the direction of the wind and of the upper clouds, as recorded by Mr. Clayton, denote a daily expansion of the earth's atmosphere, due to the heat of the sun acting laterally and vertically.

The marked separation of some cloud layers has been experimentally demonstrated, while ascending a mountain, by Professor Möller, in Germany. The lower cloud was left behind when he had gone upward of 1,200 feet, but high above him were clouds of the middle layers at a height of 20,000 feet, which soon began to darken with rain or snow.

The higher clouds, when carefully studied by Mr. Clayton, clearly revealed not only the direction but the velocity of movement of different cloud layers. Certain parts of the highest white fleecy clouds were seen to overtake others, showing difference of current or difference of elevation. At another time a rapidly moving current was seen to push under another current, causing at the point of contact little eddies and streams of air, as shown by the condensation of vapor into delicate cloud fibres. Mr. Clayton observed this exceptional formation in the summer of 1883; on February 23, 1884; March 25, 1888; July 2, 1888; and on April 19, 1889. He cited an instance where heavy particles of cloud fell fastest and assumed the appearance of long fibres caused by decreased wind velocity as the cloud dropped to a lower altitude. When the cloud descends into a more rapidly moving current the fact is shown by the lower masses hurrying forward in advance of the main cloud, which is drawn out into narrower form. This peculiar effect has been also observed in Germany.

Flammarion, the French astronomer and meteorologist, claims that the upper clouds are from 26,000 to 40,000 feet above the earth, and that they consist of minute ice particles. When Glaisher, during his memorable balloon ascension, July 17, 1862, attained a height of 37,000 feet (seven miles), he found that the Fahrenheit thermometer marked 12° below zero. At this great altitude he saw the highest clouds still far above him. It is, however, by no means certain that in these upper regions the clouds always consist of ice particles, because Flammarion discovered during several balloon ascensions that at very great heights the cold due to elevation was penetrated here and there by warmer streams of air. During another balloon ascension, on June 26, 1863, when Glaisher had gone up to a height of 13,000 feet, he found an immense cloud of delicate snow crystals nearly a mile in thickness. The slight iridescent effect seen when moonlight illumines semitransparent clouds is doubtless caused in a similar way by fine ice dust floating in the air at

a great altitude. Halos arise from the same cause, as shown by Flammarion, who demonstrated that they were due to the decomposition of light while passing through innumerable ice crystals.

On August 11, 1890, the upper air currents, measured by Mr. Clayton from the observed cloud movement about seven miles above the earth's surface were found in this exceptional instance to be moving at a velocity of nearly 200 miles an hour. As not more than twelve times a year do these upper clouds move in any other direction than from the west, it follows that a balloon journey across the Atlantic Ocean might be made from the United States at a rate of considerably more than 2,400 miles a day. Flammarion gives an instance in which a balloon sent up from Paris at 11 P.M., reached Rome at 7 A.M. next morning, thus traversing, south-east, a distance of nearly 800 miles in eight hours. The currents that might carry a balloon across the Atlantic eastward to Europe are disclosed by the upper cloud movements, which show the general drift of the atmosphere on a vast scale. Beside denoting the velocity and direction of motion of great storms coming from the west, these high clouds reveal the increasing or decreasing intensity of such storms, with the resulting distribution of rain. It has been found by Mr. Clayton that curved, light, fleecy clouds denote the approach of a storm of increasing energy, and that these high clouds frequently give indications of coming rain in advance of barometric indications at the earth's surface. It is becoming clear that the old fashioned weather prophet was in agreement with some of the advanced meteorological methods when he forecast the weather from the appearance of the sky.

SOME INVENTIONS BY WOMEN.

Who said that woman does not possess inventive genius? The jester, Voltaire, is chiefly responsible for this little bit of fiction. He said in his *Philosophical Dictionary*: "Very learned women are to be found, in the same number as female warriors; but they are seldom or ever inventors." We match this by the epigrammatic and popularly-accepted saying that, "Necessity is the mother of invention." Why the mother of invention? Why not the father? Because, "every schoolboy" knows that in need the woman of the family is the first, the quickest, the readiest to draw on her invention; she can invent almost anything, from a plausible excuse to a new kind of bonnet. Why is the presiding divinity over invention always figured as a goddess? Artists depict the genius of invention as a lofty, voluptuous female. They show her in thin, scanty dress, attended by nude little boys, and, all around her, are gear wheels, anvils, and other implements of the artisan. The idea for the picture is borrowed from the ancients, who generally worshipped inventive genius. Many of the goddesses were thus held in remembrance. Isis in Egypt, Minerva in Greece, Empresses in China—all were worshipped for their inventive genius.

To illustrate a woman's inventive mind, take the great industries first. For silk and paper we are indebted to the Chinese. In the quaint language of the Chinese legend, "women have always been weaving silken nets for men." Paper, as we know, was first made largely of rags. It is said that a lady of the Court was one day chewing a piece of her ribbon, and throwing it in the sun; the morsel

dried hard, and on being pressed out, gave the notion of paper. The use of cotton as a textile fabric dates back to ancient times, and is usually ascribed to Queen Semiramis. But it is only in the present century that cotton fabrics have become the staples of the civilized world. For centuries the industry remained pretty much the same, on account of the great difficulty in separating the cotton from the seed. It took a negro in the States four and a half days to pick the cotton grown on one acre, and ninety days to separate it from the seed. But it remained for an American woman to solve the problem. Mrs. Catherine Greene, widow of General Greene, of Revolutionary fame, suggested to Eli Whitney, a mechanical Yankee, boarding with her, the idea of a machine to tear the cotton from the black shell. The wooden teeth of the first machine did not work well; then Mrs. Greene thought that wire would be better, and within ten days, a cotton gin was made so complete that all later ones are modelled after the original. Through the efforts of her second husband, Mr. Miller, the keen-witted woman received a small interest in the gin.

Again, in the spinning of cotton yarn, woman's inventive mind has been at work. First the thread was drawn out and twisted by means of a spindle in the left hand, by which it was set whirling while the fibres were drawn out of the mass and guided by the fingers of the left hand. Then, a German woman invented the spinning-wheel, by which one spindle only was set in a frame. To-day, 200 to 300 spindles are set in a frame, and cotton yarn is spun out so fine that one pound will make a thread 350 miles long. Pamphile, a woman of Cos, invented gauze. She unravelled and re-manufactured it into fabric known to Roman ladies as *cos vestis*, to the moderns as *coan* or gauze. This airy, fairy stuff, called "The Women's Wind," takes color and bears embroidery. Barbara Uttman, of Saxony, was the inventor of pillow-lace making. She taught the art to the young ladies of her own country; and to-day, it is the leading industry of Belgium. The fine thread lace stitch is the invention of a woman. The stitch was lost for several centuries, but it was found by M. Bessain, to whom the Italian Minister of Commerce gave letters patent and control for fifteen years. Mheural Nisa is celebrated by Tom Moore in the "Light of the Harem." Nourmahal, as she is there called, invented Cashmere shawls. The perfume distilled from attar of roses is said to have been her discovery. Caroline Herschel made many improvements in telescopes. An English woman, Mary Power, invented the aquarium, which is invaluable to naturalists. A French woman, M. de Coudrays, invented the manikin, now almost indispensable in the study of medical science. An American sculptress, Harriet Hosmer, made marble from limestone, and showed that the magnet could be utilized for motive power. High in the roll of honor of American female inventors is the name of Betsy Metcalf. In 1789 she made the first straw bonnet. The industry spread rapidly in Massachusetts, and within fifty years after the first straw hat was made, that State produced annually over \$1,000,000 worth. It is estimated that 10,000,000 straw hats and bonnets are now turned out each year in the United States. The mower and reaper was invented by Mrs. Ann Manning, before MacCormick put his machines on the market. She perfected the system for combined action of teeth and cutters.

patented by her husband. She also invented a clover ~~maner~~ ^{maner}. The Burden horse-shoe machine, which turns out a complete shoe every three seconds, is the product of a woman's brain. Some say that a little girl first conceived the idea of a gimlet-pointed screw.

We do not know more than one-half of all the things invented by our women. In most cases women are loth to take out patents on their mechanical or practical devices; they either let the men get the letters for them or else they give the idea away free. Thus, Miss Louise McLaughlin invented the underglaze on pottery. She did not think or care to patent the process, and the result was a mean man got the patent for himself. A San Francisco lady invented the baby carriage; a Chicago lady the paper pail, and a Hoboken lady the Eureka street-sweeper.

One of the most useful inventions of recent years is that patented by Miss Maggie Knight. It is the satchel-bottom for paper bags. The same woman invented a machine for folding bags. Mrs. Mary Walton invented a system for deadening noise on the elevated railroad in New York. Mrs. Mather has made a deep sea telescope, for bringing the bottom of the largest ships to view without raising them to dry dock. Among the thousands of inventions by women we may name a volcanic furnace for smelting ore; a rotary loom; a fire escape; a wool feeder used in all the New England mills; a spinning machine; a screw crank; a system of improved drainage; and household appliances in great number. Now, who says that woman does not possess inventive genius?

A NEW SOUNDING APPARATUS.

A new sounding apparatus has been invented in England for which several advantages are claimed. The machine is intended to serve not only as a reliable means of sounding, but also as a submarine sentry, giving warning when any particular depth of water is reached. The apparatus comprises a winch with indicators, etc., and a wooden sinker, the latter being the essence of the invention. Practically this sinker is a wooden kite reversed, and is so adjusted in weight and shape that it sinks when towed through water, and always remains at any given depth without any regard to the change of speed of the ship. The depth being arranged at that which will be perfectly safe, whenever bottom is reached at that depth the machine may be so arranged as to automatically sound a steam whistle or bell or give notice to the pilot in some other way that the ship is approaching dangerous water. The invention, it is said, has been subjected to prolonged tests and proven to be perfectly practical and reliable.

MAPPING THE SOUTHERN SKY FROM A MOUNTAIN PEAK 14,000 FEET HIGH.

Upon various mountain peaks in the heart of the Andes, from 4,500 to 14,000 feet above sea level, there have been in use for nearly two years past, two portable houses, which form the home of a corps of scientists. They are making a map of the southern heavens, after a plan similar to that of mapping the northern heavens, which has been in progress for some years. The first expedition for this purpose was formed late in 1888. It set out in February 1889, and among the equipments were the two portable houses and such photographic and meteorological instruments as would be necessary for accurate

observation. Upon arriving in Peru, and spending several weeks in looking over the country, Professor Bailey, who is in charge of the expedition, selected, as an observatory, a mountain summit 6,650 feet high, eight miles north of Chosica and twenty-six miles inland from Lima. This location was deemed high enough to be always from 1,000 to 3,000 feet above the fogs of the coast, and far enough from the interior to escape its rains. The portable buildings were put up, and three other small houses were built for the assistants and servants. The summit was named Mount Harvard, and observations were begun in May 1889. The instruments used for observation were a photographic telescope of eight inches aperture, a meridian photometer, a six-inch field glass, and various meteorological and other instruments. At the end of four months much success had been attained. The plan followed was to cover the entire sky from 15° to the south pole four times, once with photographs of spectra, having an exposure of an hour, which included stars to about the eighth magnitude; secondly, with an exposure of ten minutes, giving the brighter stars; thirdly, with charts having an exposure of an hour, permitting a map of the southern stars to the fourteenth magnitude inclusive; and, fourthly, with charts having an exposure of ten minutes, including stars to the tenth magnitude. The meridian photometer may be described as a double telescope instrument, especially constructed to make a more accurate measurement of the magnitude of stars than had previously been attempted for the southern heavens. This instrument was also used with great success.

During September and October, 1889, the sky became so cloudy that a new location of the observatory was made January 6th, 1890, at Pampa central, on the Atacama desert, with an elevation of 4,535 feet. Late in February the expedition returned to Mount Harvard, where it has remained until news was received, on January 3rd of this year, that the observatory had been removed to Vincocaya, in the neighbourhood of Arequipa, with an elevation, of 14,110 feet. This removal was not a sudden one, but had been contemplated for some months. Professor Bailey was undoubtedly annoyed by clouds, as he had been in the winter of 1889, and has simply sought a new permanent location southward, where the average of cloudless sky through the year seemed to be much larger than at Mount Harvard, Chosica. The press despatch which brought the news of the removal of the observatory said that the expedition was soon expected to be joined by a new expedition from Harvard with the most improved instruments. One of the latter is a new photographic telescope, which cost \$50,000. This telescope is of 24 inches aperture, and will take the place of the one of 8 inches aperture which Professor Bailey has been using. The instrument, when placed in position, will be principally used for the study of the distribution of the stars, for complete catalogues of cluster, nebulae, double stars, and for the spectra of faint stars. The plates as now taken by Professor Bailey, with the small instrument in his possession, have to be enlarged three times for the maps. With the new instrument the same results will be attained in the original photographs without enlargement. The new instrument is known as a photographic doublet, and its use will, undoubtedly, produce the most successful and interesting results.

"THE LOVES OF SOME LITERARY WOMEN."

PART II.

"Why did she love him? Curious fool be still;
Is human love the growth of human will?"

Byron.



THE first English "novel," pure in style, and free from any coarseness and vice, by a woman, was "Evelina." The author, as we know, was but a young girl, a quiet, shy young girl of the last century. That the book, which was read and admired by young and old, the wise and the foolish, the great and the little people of her world, should have brought her into notice, is not to be wondered at. When "Evelina" was published and read, and the author of it discovered, peace and seclusion were over for her. Timid and shrinking as she was, she had to take her place in the world among some of the greatest and most well-known people in the land; had in fact to pay the penalty of having become great herself. Well-known people of whom we read now, were intimate friends of little Fanny Burney. In her childhood she was a pet of the great David Garrick, who was only one of the many distinguished visitors at Dr. Burney's house. Among the first of the friends she made, after she had given her first book to the world, were Mrs. Thrale, better known as Mrs. Piozzi, and the great Dr. Johnson, who made a great pet of "dear little Burney," as he always called her. Horace Walpole, too, she met at the house of old Mrs. Delany, who was one of her greatest friends, friendship with whom led to her introduction to the King and Queen, for Mrs. Delany was living at Windsor, with a pension and residence provided by their Majesties. Already familiar with her book, Queen Charlotte took a personal fancy to the young author, and it resulted in her offering her the post of Keeper to the Robes. Miss Burney did not appreciate the honour, but her friends and relations did, and so it ended in her becoming a lady's-maid of the Queen's, for after all that is what it amounted to. Fanny Burney's health and spirits drooped under the hard work she had to do in her regal prison, for her post was irksome and tiring to a degree. Of lovers during her sojourn at Court, we hear of one, whom in her Diary she calls Mr. Fairly, but who was supposed to be a Colonel Digby, a widower, who ultimately married Miss Gunning, and not the author of 'Evelina'. Thoroughly tired and worn out with her duties at Court, she was released from them at last, everyone, including the Royal

Family, being unfeignedly sorry to part with her. When the French exiles of 1792 sought protection in England, Fanny Burney came into contact with many of the French nobility, among whom were some whose names are well-known in French literature; and among others, she met General D'Arblay, an officer and a gentleman in every sense of the word; a handsome and well-read man of thirty-eight or thirty-nine, and himself something of a poet. Fanny Burney could scarcely help becoming interested in the man, first on account of his misfortunes, his exile, and descent from comparative wealth into utter poverty, secondly, on account of the man himself with all his attractions; and when it came to his giving her lessons in French while she instructed him in her own mother-tongue, they taught each other something better and sweeter than their respective languages. There was some very natural objection on Dr. Burney's part to giving his consent to D'Arblay's marriage with his daughter, when things came to that pass, for as the suitor himself said he had very little hopes of recovering the fortune he had lost by the Revolution; but the young writer had her slight pension of a hundred a year from the Queen, and was also able to add to her income with her pen. So the lovers commenced life in a very quiet and humble manner, living in a farm house, and trying all sorts of plans for making both ends meet, having meanwhile for their friends "the distinguished and the excellent of two countries;" friends who did not forget or forsake them in their poorest times. Wordsworth's very true lines

"There is a comfort in the strength of love;
 'Twill make a thing endurable, which else
 Would break the heart"

might be very appropriately applied to these two, whose marriage had been one of the right sort, for their life was altogether a troubled one. The wife had to suffer much anxiety, during the days which followed the flight of the Bourbons and the return of Napoleon. General D'Arblay was in all the thick of the peril of war; and escaping all danger, his soldiering was put an end to at last, by severe injuries inflicted by the kick of a horse. The remainder of his life, which was short, was spent in peace with his wife, and the son who was destined for the Church, in Bath, which was then the resort of many of the world of literature. It was there this gallant and courteous gentleman, who had been a soldier ever since his thirteenth year, breathed his last. The death-bed scene was very sad but characteristic of both husband and wife, and shows us a true picture of the love and thought which they always had for each other. He was very weak, too weak to hold a cup from which to drink, himself, and as his wife moistened his lips with a spoonful of the contents of the cup, he, with the little strength he could muster, asked "Qui—?" That was all, but she guessed that he meant to ask who would perform the same loving duties for her, and with a wild and momentary gleam of hope she exclaimed "You, my dearest *ami*—you, yourself. You shall recover, and take your revenge." And at the end the dying man assured his wife that his last thought would be of their meeting in heaven. "*Je ne sais si ce sera le dernier mot; mais ce sera la dernière pensée—notre réunion*" were his last words to that beloved wife.

A fate very unlike hers, was that of Mrs. Norton, one of the three lovely Sheridan sisters, who were known in their youth, as the "Three

Graces!" Beautiful as she was, charming as she was, with all the gifts she had, of the love-story of this "Byron of modern poetesses," as she was called in the 'Quarterly,' we have no particularly pleasant tale to tell. She was a very lovely woman, a poetess of considerable merit, and a very prolific writer, but she was unfortunate in her marriage with the man by whose name she is best known. When very young she married Mr. George Norton, younger brother of the third Lord Grantley. He was a young barrister with poor prospects, and with but little private means, and a man of a weak and selfish nature. An old friend of his wife's father, Lord Melbourne, when Home Secretary, for the young wife's sake got the husband a Government appointment, which he lost through his own fault. In revenge, he ill-treated his wife, and the end of it all was the well-known trial of Norton v. Melbourne, before Lord Chief Justice Tindal and a special jury. The case altogether fell through, and resulted in a separation of forty years, during which time the Nortons quarrelled constantly over their children, money matters, and the copyright of the wife's books; for it was before the days of the Married Woman's Property Act. George Norton died just before his brother, and thus missed the barony which fell to his son. Mrs. Norton married again, and this time it was to an old and much esteemed friend, Sir William Stirling-Maxwell, M.P. for Pollok, Renfrewshire, better known as Sir William Stirling, the author of several works. Mrs. Norton only survived this marriage three months, her husband dying the following year.

A beauty and a wit of an earlier day, was the renowned Countess of Blessington. She was the daughter of an Irish gentleman named Power, and of her first marriage, which does not seem to have been a happy one, we hear very little; four months after she became a widow she married Charles Gardiner, second Viscount Mountjoy, first Earl of Blessington; this was the earl's second marriage also, and neither his own past life, nor those of either of his wives, would bear too close a scrutiny. However, with their marriage the Blessingtons seem to have turned over a new leaf, though perhaps with an income of £30,000 a year it is not very difficult to lead a fairly virtuous life; and in their splendid London mansion were to be met all the great and the literary people of the day. One of the best works from this titled woman's pen is her "Conversations with Lord Byron," whom she met on the Continent, and who was a great admirer of hers. When Lord Blessington was carried off by apoplexy, his widow was left with an income of £2,000 a year, with which she recommenced the brilliant life which she loved so well. She became a queen of society, the centre of a literary world, gathering round her all the most brilliant and distinguished persons of the day; published innumerable works one after another: mostly novels, and occasionally verse; and led in the interval the gayest, most frivolous existence, once more damaging her reputation by her intimacy with the celebrated Comte D'Orsay, one of the most noted dandies of his day, the husband of her step-daughter, from whom he had been separated. The extravagant life the Countess led, could not last for ever, and when the crash came, she and D'Orsay settled in Paris, where they intended to continue their life of gaiety and frivolity, on perhaps a smaller scale; but the same fatal disease to which Lord Blessington had fallen a victim carried off his widow. Of D'Orsay all that can be said, and has been said, is that he was

handsome, a "dandy, a wit, an artist," and a regular man of society. He had not loved the girl he had married, Lady Harriet Anne Gardiner, Lord Blessington's daughter by his first wife, the union having been an English version of the "marriage de convenance;" and the woman that the Frenchman really loved too well, and unwisely, was the beautiful and fascinating step-mother, whose death came upon him as a great shock, and whom he survived three or four years.

Marguerite, Countess of Blessington, and Alfred, Comte D'Orsay were buried in the same vault, one in the little cemetery adjoining the domains of the family of de Grammont, into which family a sister of the Count's had married. The last resting place of these two is a handsome monumental pyramid raised by the Frenchman to the memory of the woman he loved. The chamber contains two *sarcophagi*, in which rest the remains of the English Countess and the French nobleman.

Another titled female novelist, with Irish blood in her veins, who came into the world some years before the brilliant Countess, was Lady Morgan, her title being one of less importance, for her husband, Sir Charles Morgan, M.D., was only a knight. He was an Englishman, and a man of some renown in his profession; and kind and popular among his patients in his wife's native country. He was a widower when he married the lively Irish woman who was some years older than himself. The husband and wife were utterly unlike each other in disposition; she being the very type of the vivacious, restless Irishwoman; and he, a quiet reserved Englishman; but the marriage turned out a very happy one. Sir Charles was a man of literary tastes, and took much interest in his wife's writings; he, himself was the author of "Sketches of Philosophy of Life," and also used to contribute many chapters—those relating to things usually outside a woman's sphere, such as law, medicine, the press, &c.—to her best works. When they removed to London, he obtained the appointment of physician to the Marshalsea prison, and died in 1844, much to the grief of the wife who was devoted to him.

Mary Somerville, the woman of science, the good wife and mother, was twice married, and both times to a cousin. It is of her second choice that we shall have to speak. We do not hear much of her first husband, Samuel Greig, but it is the name of her second life-companion which she has made famous. Her second venture in matrimony must have been the happier, for we read in Mary Somerville's own account of her life, that she met with no sympathy at all in her studies, from her first husband, "who," she wrote, "has a very low opinion of the capacity of my sex, and feithier knowledge of, nor interest in, science of any kind." She was a widow after three years of married life, and during her five years of widowhood, she gave herself up completely to her studies, in which mathematics and physical astronomy played a great part, and which were cut short, for a time, by her marriage for the second time with a cousin. William Somerville was a more fitting companion for a woman of Mary Somerville's nature, than her former husband had been. Himself a clever and classical scholar, and a good writer, he could sympathise with all her tastes; and though he wrote himself and could have given a very valuable book of travels to the world, he would never publish, but gave all the assistance in his power to the wife whose

talents brought her fame. The marriage was a thoroughly happy one, full of love and sympathy between husband and wife, and must have made up completely to Mary Somerville for the lack of the latter quality in her former marriage. There may be love between two people for a time ; but without sympathy it must be weakened.

Real happiness then can only have come to Mary Somerville in her second union with the man who entered into all her plans, sympathised with her ideas, and gave her all his love and admiration, for she was a woman of a very loving nature. After a long and perfectly happy married life, kind, handsome William Somerville died after a three days' illness. The wife whom he loved so tenderly and in whose great gifts he took such pride, survived him twelve years.

A contemporary, though not a countrywoman of hers, was the brilliant and fascinating Madame de Staël, whose love-story was an uncommonly romantic one. She, like her English sister, the "Rose of Jedwood," as Mary Somerville was called in her girlhood, was married twice. In her youth she married the man whose name she bore all her life, and has made famous ; but though she was not actually unhappy, her warm, womanly heart waited for years before it got and gave the love which only really comes once to a woman in a lifetime.

It was Mrs. Browning who wrote that thoroughly feminine little piece :—

"What's the best thing in the world ?
 June-rose, by May-dew impearled ;
 Sweet south-wind, that means no rain ;
 Truth, not cruel to a friend ;
 Pleasure, not in haste to end ;
 Beauty, not self-decked and curled
 Till its pride is over-plain ;
 Sight, that never makes you wink ;
 Memory, that gives no pain ;
 Love, when, *so*, you're loved again.
 What's the best thing in the world ?
 —Something out of it, I think."

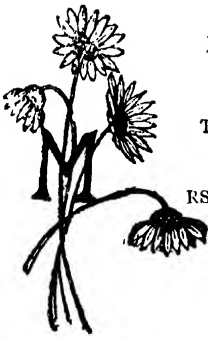
And here was a woman of wonderful genius, good looks, and great powers of fascination, of whom it might be said that she had almost lived her life, before she found that best of things, which makes life most worth living to the majority of women ; for she had been married, and had borne children ; had suffered exile ; and had produced her greatest works. Love—of a sort—she had received much of in her time ; admiration and homage had been laid at her feet ever since her girlhood, but she went through life hungering for something more ; something, the want of which colours her well-known works, the want of perfect conjugal love and sympathy.

When she was forty-five, an age at which women give up thinking of lovers, if not of love, she made the marriage of love, which had been the dream of her life, with a man of twenty-three. When they first met, she was in exile, and in trouble, and one of the most charming women of her time ; while he was a handsome, young, and clever hussar, sick and wounded, and impressionable. Her wonderful gifts, the charms of voice and manner and intellect completely subjugated the young man who had an unusually large heart and intellect himself, while she, from the beginning of her acquaintance with him, gave him the wonderfully tender and passionate love of a mother and a wife, which lasted for the rest of her life.

They were privately married for many and various reasons, and it was not till her will was read that the marriage was known of as a certain fact. M. de Rocca, the youthful husband, the young French officer, with his wonderful beauty, and his accomplishments, loved the woman he married with a tender, chivalrous devotion to the day of her death, only surviving her about seven months; his own delicate health for some time past having filled the end of Madame de Staël's life with grief and anxiety. He has left behind him two clever works, "Memoirs of the War of the French in Spain" and "The Campaign of Walcheren and Antwerp in 1809." But it is as the husband of the wittiest and most agreeable woman of her time, that he will be remembered. Madame Necker, the mother of this great and gifted woman, and herself an author of considerable ability, unlike her daughter, whose first marriage was the usual "marriage de convenance," married only once, and then for love. She was a beautiful woman, and more highly educated than women generally were in the last century. One of her first lovers was Gibbon, the historian, and we hear that at first the great writer thought there was some hope for him, but his own father would not hear of the marriage, and he, being utterly penniless without his help, resigned his hopes and, in time, he and Madame Necker became only good friends. Gibbon remained a bachelor all his life, and the lady married Necker, when he was on the road to fame, and she was poor and unknown. This celebrated couple's life was one long, happy, literary labour. He was a man of wonderful talent, and noble character, and worthy to be the husband of a woman like Susanna Necker, and the father of Madame de Staël. He has left behind him several works among which are his "Memoires;" "Importance des Opinions Religieuses;" "Administration des Finances;" "Compte Rendu au Roi;" and "Eloge de Colbert," etc.

GRETCHEN.

(*To be continued.*)



THE EDITOR'S EASY CHAIR.

THE LEPER QUESTION IN CONSTANTINOPLE. (HOW IT IS SOLVED.)

RS. ALICE HAYES, DURING THE LAST YEAR OF HER stay in India, was doubtless the means of alleviating, in no small degree, the miserable lot of the poor European and Eurasian lepers, who are lingering out the brief remainder of their wretched lives in our local Asylum. Those who take sufficient interest in the matter to read the last "Half-yearly Report of Mrs. Hayes' Leper and Poor Fund" will see for themselves the character of the good work done by Mrs. Hayes in her capacity of "a humble citizen." But we wish to call attention to-day of the work among lepers of another lady—accomplished under much less favourable conditions than that of Mrs. Hayes. Miss Kate Marsden, the English lady who is studying the manifestations of leprosy, with the intention of devoting her life to the care of those afflicted with the disease, reached Constantinople a few months ago, and, in a private letter to a friend at home, she gives a pitiable account of the manner in which lepers are treated in the Ottoman Empire. She had an idea that in Constantinople, that city of unused palaces, one or another of them might have been turned into a bright hospital for the lepers, where, tended by kind, well-trained nurses, they might find such mitigation of their sufferings as skill and gentleness could bestow; but one after the other of these palaces was left behind, and she knew that the idea must be given up. Away through the crowded streets she drove and made no halt until she reached a large, open space outside the city; but if she expected to find the lepers stowed away here, she was very much mistaken. The guide took a boat, and after a long row, they landed on a cold, dreary-looking spot; and here again they took carriage and drove towards a place which, in the distance, looked like a forest of cypress trees, and yet, no. The white stones, just distinguishable, made her think it must be inhabited; but as the carriage drew nearer, she saw that they were not houses, as she imagined, but hundreds and thousands of graves, packed as closely as it was possible to be, even in Turkey, with the tall, dark, gloomy cypress trees planted every few yards apart. She asked the guide why the cypress

trees were planted there so thickly; his answer was, "Because, madam, it helps to kill the stench from the graves." She drove a long way into the forest of the dead and the cypress, until all view of the sea was gone, and she found herself shut in. Yet she was not alone, for here, in the very midst, dwell the poor, outcast lepers, driven here by the Government. The guide was simply horrified when he discovered Miss Kate Marsden's intention of going in among them all, and he absolutely refused to go a step nearer. As she stood within the leper house she was dumb with astonishment that any nation, however barbarous, could, in the face of civilization, subject any portion of its people to such a miserable condition. No sun sheds its healthful rays there, and the chill which struck her as she remained within the house gave her an idea of what the lepers must suffer. She said she did so long to tell them how she sympathized with them and how gladly she would take their burden from them; how she hoped and prayed in her heart that nowhere in the world were the poor lepers treated as here in the paradise among cities.—Constantinople. There is a ray of light here, however, and that is the good doctor, who is doing every thing in his power to induce the Sultan to provide properly for them, and he is devoted to their cause; but in such a country and with such people he is almost powerless. His name is Pascha Zambaco; he is a very kind man, and the misery of the lepers weighs heavily upon him.

The wind came howling through the gloomy trees, and blew in sharp blasts through the door, and some of the poor lepers standing outside leaning upon the graves shuddered and drew closer round their miserable bodies the rags which helped to cover them, but which were quite unfit to keep out the cold even from people in health, much less from those suffering from such a disease as leprosy. Miss Marsden says that what she saw is really too awful to describe, but it has taught her the necessity of seeing for herself the condition of the lepers, if she is to be of the slightest use to them in the future. As she left them they sang "The Lepers' Song"—such a dismal wail! but which was truly in keeping with their condition. It made her shiver; indeed, her whole being quivered with agony at the sight of such awful depths of misery.

It will be seen from the above account that segregation of lepers in Turkey is not only complete—but brutal in its severity. We are advocates for the segregation system in dealing with this evil, but only under conditions by which, while the public receive due protection, the lepers themselves are treated with consideration, and their hard lot made as easy to bear as circumstances will admit. The Cape Colony lepers were, we believe, treated in much the same way as those of Constantinople until a couple of years ago, when, through the efforts of a noble-hearted Englishman assisted, to a large extent by English ladies, the attention of the Cape Government was called to the matter, and proper and considerate treatment insisted upon. In fact, in all charitable movements, English women and English men have been well to the fore, and it is greatly to be deplored that so many well-meaning busybodies—such as those who are now trying to force bankruptcy upon India by the prohibition of opium cultivation—are not willing to see how many channels of usefulness are open to them if they would only drop their theoretical fads.



HE circumnavigation of the globe has already been accomplished in a span of time much shorter than that imagined by Jules Verne. By the beginning of the twentieth century we shall probably perform the

FEAT OF CIRCLING THE PLANET

far more quickly than we do now. We can never, indeed, fulfil the boast imputed to Puck in "A Midsummer Night's Dream," and "put a girdle round the earth in forty minutes." Not even with the telegraph can we hope to realize that vision. But forty days will prove sufficient for a circumterrestrial journey when certain railways, some of which are projected, and all of which are possible, shall have been carried out. At present by far the larger part of a tour around the world must be made by water, and, to say nothing of the roundabout and zig-zag character of the course pursued, it is obvious that for only two comparatively small fractions of it are railways available. For the globe-trotter of the next century the proportions of land and sea travel will be reversed. The voyage across the Atlantic will be shortened by almost one half. It can only be a question of a few years when the projected railway from Nova Scotia to the extreme eastern point of the island of Cape Breton will be constructed. Thence the traveller will be transported by a steam ferry to the nearest point on the western coast of Newfoundland. He will then traverse by rail that great island to St. John, or some other seaport on the eastern coast, from which a fast steamer will convey him in three days to Galway, on the west coast of Ireland. Again taking the train, he will proceed to the north-eastern angle of the Green Isle, near the Giants' Causeway, whence a steam ferry will carry him to the nearest point on the coast of Scotland. Here the tourist will once more take the train to Dover, and having crossed to Calais, he will go by rail to Orenburg, on the western border of Siberia. A dozen years hence the railway resolved upon by the Russian Government, and already partially built, will transport him to Vladivostok, the great naval station of Russia on the Sea of Japan. From this *entrepôt* it will be entirely practicable to construct a branch line, running north-eastwardly along the coast of Mantchuria and Kamtchatka to Behring's Straits. During a large part of the year these straits could be traversed by a steam ferry, connecting on the American side with a railway carried north-westwardly from Vancouver's Sound through British Columbia and Alaska. It would prove no more difficult to keep, by means of sheds and rotary snow-ploughs, such a line clear of snow than it is to perform the same office for the Canadian Pacific. When this Alaska line and the Kamtchatka branch of the trans-Siberia railway are completed, it will manifestly be possible to go round the earth entirely by land, except for four ferriages and the single voyage of no great length from Newfoundland to Ireland. Under such conditions the journey could certainly be accomplished, as we have said, in forty days, and perhaps in a little over a month.

In another direction, the next century will witness a

GREAT DEVELOPMENT OF RAILWAYS.

The time is coming when it will be possible to traverse nearly half

the circumference of the earth from north to south in a railway carriage. We have already spoken of the probable extension of the Canadian Pacific to Behring Straits for the purpose of connecting with the Russian line across the continent of Asia. At a much earlier date we are likely to see an inter-continental railroad through North and South America in operation, of which the following proposals form the basis: The Mexican railway system will be pushed in a south-easterly trend from the City of Mexico to the confines of Chiapas. Thence a line crossing Guatemala Salvador, Nicaragua and Costa Rica would encounter no remarkable engineering difficulties. Next, after threading the Isthmus of Panama, the iron road would turn at a right angle, and skirt the coast of New Granada, Ecuador, Peru and Chili, effecting a junction in the last-named country with the trans-Andes line to Buenos Ayres. From this city a railway has been begun which is to run parallel to the east coast of Patagonia, the ultimate terminus contemplated being the Straits of Magellan. As all the countries interested in such an inter-continental road have signified a willingness to further it by all the means in their power, its eventual construction cannot be doubted. We may, therefore, look forward to the time when we may travel in a railway carriage from the Arctic circle to Cape Horn. Many roads that might be utilized for sections of such a trunk line are already in operation, and to fill the gaps would not require more than a dozen years.

Economy of time is not the only advantage likely to result from the

SUBSTITUTION OF RAILWAYS FOR STEAMSHIPS

in journeys planned to traverse a large part of the earth's surface. The educational utility of travel will be signally increased. Few people consider how very little can be seen in a fast tour around the globe. During four-fifths, at least, of the time devoted to the circumterrestrial trip the sole phenomena presented to the traveller's eye are the deck of a steamer and the monotonous surface of the sea. In railway travel, on the other hand, the eye is incessantly conveying information to the brain. The topography of countries, their forests and flora, the proportion of their arable, grazing and waste land, the range and character of their natural resources, the scope and variety of their industries, their rivers and highways, the number and prosperity of their towns, and the general quality of their civilization—on all of these interesting subjects a great deal of information is obtainable from the window of a railway carriage, by a skilled observer. A few words will suffice to show how largely a journey such as we have briefly indicated as possible in the near future, would contribute to a traveller's knowledge of the world in which he lives. Let us assume, for instance, the completion of the trans-Siberian railway. We should, in a tour round the world, begin, at Calais, a land journey of about 12,000 miles. First, passing over the plains of Picardy and French Flanders—which have played so conspicuous a part in French history—we should cross Belgium, which has aptly been termed the cock-pit of Europe, and then traverse the whole breadth of Germany, through the Rhineland, Westphalia, Hanover, Brandenburg, Silesia and Posen to Warsaw, the ancient capital of Russian Poland. Thence we should plunge due eastward through Lithuania to Moscow, and so on

through the heart of Muscovy across the Volga and the Ural mountains to Orenburg, on the western confines of Siberia. Before us would then lie the immeasurable steppes of Asia, from which in times past have issued the hordes of Attila and Zenghis, but which now are orderly and peaceful under the rule of the White Czar. Here we could not well carry out the plan of avoiding night travel, because only at long intervals is a comfortable stopping-place encountered, as at Tomsk, Tobolsk and Irkutsk. At Vladivostok one might profitably pause a day or two to inspect the colossal naval station constructed by the Russians on the Sea of Japan. From this point the projected railway would transport us through Mantchuria, the cradle of the dynasty now ruling China, and so forward through the Kamtchatkan peninsula, the home of the Tunguses and of the reindeer, to Behring's Straits. The short passage by steamer to the Alaskan shore completed, the traveller would find himself on the soil of the United States. There is nothing visionary in the tour we have outlined. As we have said, the only missing links in the railway chain are, the line across Newfoundland; the extension of the trans-Siberian road, already under weigh, through Kamtchatka, and the continuation of the Canadian Pacific, or Northern Pacific, through British Columbia and Alaska to Behring's Straits. These links will undoubtedly be supplied in the next quarter of a century, so strong and widespread is the preference for railway over steamship travel.



VERY LARGE NUMBER OF PEOPLE ARE INTERESTED, either directly or indirectly, in the actions of the small boy. His capacity for getting himself, and others, into trouble is immense. We shall briefly indicate

SOME OF THE THINGS A SMALL BOY CAN ACCOMPLISH.

There is no time at which a small boy of, say, four or five years of age, is riper for mischief than when he is all alone. In fact, one small, curly head is better than half a dozen when novelties in mischief are to be wrought. If a man is left alone, he will smoke or read; if a woman is left alone—we don't mean alone in the world—but alone in the house, with no one to talk to or discuss the latest scandal with, she will practice on the piano, or before the looking-glass, or work the ends of her fingers almost off embroidering impossible animals, birds, or children on a chair-tidy. But with the small boy it is entirely different. He can only pass the time pleasantly by engaging in a series of pursuits that are as full of fun to him as they are totally devoid of it to his parents. A boy at such a tender age has a very queer appreciation of what constitutes fun; but if he can enjoy what, to him, is the quintessence of fun, what difference does it make to him if older people are pleased to regard it in a different light?

It is difficult to understand the mental process by which the small boy conceives it to be bloomingly pleasant and mirth-provoking to mix a lot of nails, keys and buttons in his father's smoking mixture. Yet the small boy does it, even when he knows that a possible whipping is involved. A grown person would never think of indulging in such a freak when the comfort of his anatomy was

involved ; an adult would not do it unless the risk carried with it a pretty good chance of realizing a monetary reward.

Having mixed the nails, buttons and keys with the tobacco, about as thoroughly as a painter would mix paint, he returns the box to its proper place, and turns his attention to something else. Noticing the feather duster on the table he begins sweeping the room with it ; but as he doesn't seem to be doing any damage, it soon ceases to be enjoyable. The family cat perhaps comes along. The cat does not come too near, for only the other day he lathered her face with his father's shaving brush, and got so much soap in her eyes that she madly struggled from his hold before he could begin the operation of shaving her with his brother's patent safety razor. He finally entices the poor quadruped into a room, and having closed the doors and windows, wonders how a black cat will look whitened with flour. So he thrusts the feather duster into a bag of flour, and, stirring it around for a while, hauls it out and begins banging the cat with it at long range. About as fast as the cat can shake the flour off the boy can put it on. If it were self-raising flour it would be all the cat's nine lives are worth to venture out in the rain.

The pride with which his parents regard

THE GRAND PIANO

may be approximately appreciated when it is stated that it is being paid for on the instalment plan, and that the head of the family is paying for it by going without his tiffin at the hotel and trying to feel that he is revelling on the apex of high Olympus while removing the damask wrapper from a couple of home-made sandwiches. Yet the small boy stands at one end of the room and tries his best to mark that valuable instrument with bow and arrows, or catapult. True, he does not often succeed in hitting the piano, but the adjacent wall and surrounding pictures bear evidence of his handiwork and skill. This, of course, is simply equal to holding a note for one thrashing which will be paid him when due, and that will be when the marks on the wall are discovered. He then changes the keys from one door to another, takes quantities of vegetables into the library and stows them away behind rows of books, where they will probably be discovered after they have sprouted, and sent their tender emerald shoots out over the books to gain the benison of a breath of fresh air, and a garland of dancing sunshine.

And so it is that the small boy of tender years

KILLS TIME AND THE HAPPINESS OF THE HOUSEHOLD.

And so he will continue to do, even though his parents cobweb and gridiron him with switch-marks until he is striped like Hayes' Zebra, and checked like one of Harnack & Boyce's cold-weather ulsters. The switch will not cause him to see the folly of purloining the peas for his peashooter instead of enjoying them honestly at the table, and still remaining whole in the matter of anatomy. And even after he has been whipped for nailing his father's pot hat to the wall he is not half so sad at heart as at the doleful moment when he realizes that he has a fine chance at a neighbour's favourite poodle dog, but that his catapult is not at hand. From the small boy, preserve us !

TOPICS OF THE MONTH.



THE MONTH THAT IS JUST CLOSING HAS BEEN AN EVENT-ful one. Attention in this country has been chiefly directed to what has been taking place in Munipore, but as the subject has been fully treated in a separate article we need say nothing further on that head. We have also in hand the Miranzai and Black Mountain Expeditions and the outbreak among the Chins ; while rumours of risings among other border tribes and of coming trouble in Afghanistan, are of constant recurrence. The reported Naga rising has proved to be a canard, and it would be well not to place too implicit a trust in the rumours that reach us from various sources --mostly unreliable in the extreme--regarding Afghanistan. To the recent mob-riot in Benares, too, it would be unwise to attach much importance. It appears to have been entirely local, and bore no political significance as it was at first said to have done. Of course the native press has raised the old parrot-cry with which it periodically seeks to intimidate the Government. This incident, says the *Indian Mirror*, "certainly had a distinctly religious origin. . . . Not long ago we warned the Government that if ever the British lost India it would be because of the religious oppression of the people." We are getting weary of this style of irresponsible writing. It seems to us whenever a native mob wants an excuse for riot, robbery and murder, it flies to its religion for an excuse ; that religion being capable of unlimited expansion and manipulation, and calculated to cover any conceivable outrage on life or property. In this case it seems that low-class Mahomedans played as conspicuous a part as did the Hindu ringleaders. Banishment of the latter to the Andamans, where for a period they might ruminate over the supineness of the British Raj as exemplified in their case, and a good, sound flogging for the rag-tail and bob-tail would, we think, meet the ends of justice ; except perhaps in a few exceptional cases, which will doubtless be brought to light in the course of the trial of those arrested. The danger that threatened our Opium Revenue is, we think, past for the time being--although the redoubtable Don Quixotes in Parliament will doubtless, ere long, be ready for another tilt at their favorite windmill. England is having her own share of international troubles, and what with America and the Behring Sea dispute, Newfoundland and the French fisheries question, and her troubles with Portugal in Africa--to say nothing of her long-standing trouble with Ireland, and other domestic complications--has her hands pretty full just at present. America has a little difficulty on hand with Italy on account of the lynching of certain cowardly assassins who, if all accounts are to be believed, got no more than they richly deserved. It is considered probable, however, that this dispute will be settled by the payment of an indemnity to the

families of the victims—that is, if the game of “lynching back,” which has already begun, is not carried too far to allow of compromise. To the attempts that have for some time past been made to bring about a rupture between the United States and England we attach very little importance. The Republicans, losing as they are all along the line, are trying by every means in their power to catch the Irish vote, in anticipation of next year’s elections, and Secretary Blaine—who possesses much of the wisdom of the serpent—is not the man to risk losing that vote for want of a little bunkum and bounce. In the end, however, it will be found to be mere election froth. Many of the most influential papers in America, in alluding to the presumed feeling in America against the British, deprecate the language used by the rabid section of the press, and point out that even the suggestion of a war with England upon a question so little understood in America as the Behring Sea dispute, and in the present condition of American maritime and naval defences, was absurd in its inception, and the supposition that the matter could be helped by bluster was no less so. “Why,” asks one of the most influential of the papers, “should we fall to fighting about such a difference? If arbitration is of any use in any case whatever, why is this not precisely the case? If there be some political or party consideration involved, does anybody seriously suppose that the fortunes of the Republican party would be improved by precipitating a war with England about the seal fishery in the Behring Sea? The war of 1812 had at least a popular cry. The impressment of American citizens on British ships, if not the real cause of the war, was its popular cause. Yet never was a more unpopular war; and an administration which should so wholly misunderstand the national feeling as to contemplate war as a settlement of the difference about the seal fishery would at once, and justly, entirely forfeit public confidence.” It was probably owing, in a great measure, to writings such as the above that the ‘war’ party was brought to its bearings. War with England has long been a trump card in American politics, but it is so no longer. The supposed necessity of conciliating the Irish vote, especially upon the Republican side, has led to some mortifying performances, but the United States will not go to war with England to win Irish votes until the position is seriously changed. That there is no want of a sensitive feeling of national honor has been fully demonstrated by the submission of the Behring Sea question to arbitration, and the whole difference upon which the arbitrators are called to decide is whether the phrase “the Pacific Ocean” in the Russian treaties with England and America in 1824 and 1825, included the Behring Sea. Great Britain maintains that it did, the United States that it did not. It will thus be seen that there was no reason for violence, in words or deeds, while there is ample room for a settlement, satisfactory to both sides, by arbitration. At the same time we cannot ignore the fact that the submission of the question of the jurisdiction of the United States over the Behring Sea to the Supreme Court of the United States by Great Britain, and the seeking for a judicial settlement while diplomatic negotiations were still pending, was as discourteous an act to the American Government as could have been suggested; and had the feeling against us been as strong as it was represented to be it would probably have been promptly and forcibly resented.

THERE ARE FAR GREATER DIFFICULTIES TO BE APPREHENDED, however, over the Newfoundland business, and, if the colonists maintain their present attitude and refuse to accept arbitration, except on the basis of a final termination of the French Treaty rights, we shall be placed in a very peculiar position, and one that may prove prolific of trouble. On March 26th a deputation consisting of three members of the Assembly, the Premier, the Speaker, and the leader of the Opposition, with two members of the Legislative Council, was appointed to proceed to England for the purpose of placing the Imperial Government in possession of the views held in the island regarding the Bill recently introduced by Lord Knutsford, giving power to British Naval Commanders on the Newfoundland coast to enforce the execution of treaties to which Great Britain is pledged. When the delegates sailed, they bore with them a strong protest from the Newfoundland Parliament against the Arbitration Bill, and public feeling ran very high in regard to the so-called "coercive measures" of the British Government. Meanwhile, Lord Knutsford's Bill, which was to have been read for the second time in the House of Lords on Monday, the 20th instant, has been postponed, in order to enable the delegates from Newfoundland to appear at the bar of the House of Lords. This they accordingly did on the 23rd instant, when Sir W. E. Whiteaway, Premier of Newfoundland, read an address protesting against the enforcement of the French Treaty of Rights, at the Bar of the House of Lords. We are not informed whether any new arguments were advanced. We are told that, previous to the despatch of this deputation "the members of the Assembly declared openly for separation from England, the numerous audience present cheering every reference to throwing off the English yoke." At the same time, it was stated that if a reasonable delay were granted, so that the colonists' objections could be heard before the Government proceeded to legislate on Lord Knutsford's Bill, the colony would accept a reasonable compromise and fulfill its obligations honorably. As the Delegates now in England represent all parties in the colony and are empowered to accept reasonable terms, the matter of settlement will all depend upon what the deputation may consider a "reasonable compromise." There seems, at present, no inclination on the part of France to throw unreasonable obstacles in the way. She has, in fact, acted with moderation throughout the controversy. It is, of course, much to be deplored that in this case the mother country has had to interfere to ensure the performance of international obligations, but as the first Lord of the Treasury pointed out to a deputation of Newfoundland merchants that waited on him, so long as the treaty with France remains unrevised, it must be respected by all the subjects of the Queen, wherever they may be. In this attitude of the British Government we see nothing of which the colonists can complain. England is responsible for the peace of the empire, and the only alternative to arbitration was war. The position would then be this,—that either we should have to fight France ourselves in a cause that is far from honorable, or else we should have to allow France to enforce treaty obligations upon the colonists *vi et armis*. Unless the colonists should prove themselves altogether contumacious the latter alternative is, of course, altogether out of the question.

WE SHOULD IMAGINE THAT, WITH REGARD TO OUR RECENT troubles with that bumptious but tottering little country, Portugal, the patience of the British Government has almost reached a limit. Strong in their weakness, the Portuguese never allow an opportunity to pass of putting British subjects to humiliation, taking of course, the best of care that when they attempt any of their 'monkeying' they are in overwhelming force. There are not wanting signs that, if England wishes to retain her colonies, she must uphold their rights, either by arranging for arbitration, or if necessary, by stronger measures. But arbitration has so often been tried with Portugal to no purpose that it is no matter for surprise that the English press is up in arms at last, and, seeing the futility of the hope that Africa may be found big enough for the two countries to push their colonizing projects simultaneously, demands redress, declaring that "the toleration shown by the British Government towards a tottering monarchy has reached its limit." What is known as the Beira incident, has brought matters to a crisis; and this last insult to the British flag is one that could not well be ignored. It was at first understood at the Cape that Lord Salisbury would merely remonstrate with the Portuguese Government for the outrage upon the British party at Beira, and, as a consequence, great bitterness was manifested against the British Government. A mass meeting was summoned to protest against the inaction of the Imperial authorities, and there was some talk of the Cape colonists lowering the British flag in South Africa. The incident that caused the excitement was as follows. Sir John Willoughby was in command of a party numbering five Englishmen and one hundred natives. The party intended to ascend the Pungwe River, and, although they carried a number of instruments for prospecting purposes, they had but few arms, sufficient only for their own protection. On arrival at Beira, they tendered the customs duties on the implements to the Portuguese authorities, but could get no reply from the Customs officials. After waiting two days, they resumed their journey, when they were immediately fired upon by the Portuguese. Sixteen were made prisoners and detained at Beira, while Sir John Willoughby returned to Delagoa Bay. It is satisfactory to know that Lord Salisbury sent a despatch to the Portuguese Government demanding explanations regarding the outrage, and his Lordship agreed to await Portugal's reply before deciding what action Great Britain should take in the matter. The political situation in Portugal at present is highly critical, and the lives of the British residents there would not be safe in case of a disturbance, as protection from the Portuguese Government could not be relied on. The latter, replying to Lord Salisbury's despatch regarding the outrage, assured his Lordship of the freedom of the Pungwe river, and said that the necessary orders to that effect had been despatched to Beira, and that instructions had been given for the release of the vessels and crews of Sir John Willoughby's expedition; but the Portuguese Government has so often proved itself unable to honor its own signature that Lord Salisbury—seeing that the demeanour of the Portuguese local officials frequently differed from the assurances made by the government at Lisbon,—has ordered three men-of-war to proceed to the Pungwe River, to see these instructions duly enforced. It is also proposed to appoint naval officers as British Consular Agents on the Pungwe. It is to

be hoped that the Portuguese officials in Africa generally will take the hint and accept the situation. It is certain that England has no wish to go to war with a country such as Portugal. Her weakness is her chief cause of safety ; but she must not be allowed to presume too much upon her insignificance.

THE ENGLISH BUDGETS OF THE PAST TWO FINANCIAL YEARS have been of an unsensational character. That for the year 1889-90 showed a substantial excess of receipts over expenditure of £3,221,000, and with this surplus at his disposal Mr. Goschen was able to provide for increased barrack accommodation and the proper equipment of the volunteer force, also to reduce the rate of postage to India, abolish the duties on gold and silver plate, and reduce the duties on tea and beer. And during the year he had also been able to reduce the National Debt by something like eight millions sterling. The Budget for the year 1890-91, although not quite so satisfactory, still shows a substantial sum to the credit of the nation, of, according to the Revenue Returns published at the beginning of the month, £1,300,000. It will be remembered that the Chancellor of the Exchequer had calculated upon a revenue of £87,610,000, but the actual receipts have proved to be much in excess of the original estimate, *i.e.* £89,489,000 ; thus the actual revenue shows an excess of £1,880,000 over estimates, the increase from alcohol alone being £900,000. But the estimated expenditure has been much exceeded, owing to the introduction of supplementary charges. The original estimate was £87,377,000, but the actual outlay has exceeded £88,000,000. Instead, therefore, of a surplus of over £2,000,000, Mr. Goschen has a net surplus of only about £1,300,000 on which to base his calculations ; and we altogether fail to see how the *Englishman* manages to figure out the surplus at "nearly two millions," that is, if he has read the Revenue Returns in connexion with the telegram published in India on the 28th instant. Our figures are based upon the Returns. The Revenue, however, is in a satisfactory state, and under every regular head except two shows an increase of actuals over estimates. For instance, under the head of Customs, despite the reduction of duties made last year the receipts exceed the estimates by £354,000. Under the head of Excise the excess amounts to £1,066,000. The Income-Tax gives £50,000 above the estimates, but the actual increase is much greater ; the Post Office revenue grows steadily, and receipts from this source have been nearly doubled during the past year. But the duty on stamps although expanding, falls short of the estimates, while the Telegraph service also falls short of its assumed expansion by £90,000. During the past year the National Debt has been reduced by £6,500,000. It is estimated that in the current year the increase on revenue will amount to £1,500,000, and the surplus to nearly 2,000,000. With this surplus Mr. Goschen proposes to deal as follows :—One million sterling to be devoted to the making of education free after the 1st September, £500,000 to further increasing the barrack accommodation, and the remainder to withdrawing light gold from circulation.

AT THE GOOD OLD AGE OF NINETY-ONE THERE HAS PASSED away one of the most prominent personalities of the present day.

Unassuming and taciturn as he was in private life, the late Count von Moltke has never been surpassed as a strategist, in perfect mastery of detail and in calm, clear foresight of the chances of a gigantic campaign. Von Moltke was born in the year 1800, and at the age of 22 he obtained a lieutenancy in a Prussian infantry regiment. He went to Turkey in 1835, and receiving a commission from the Porte served in the campaign of 1839 against Mehemet Ali, returning to Prussia in 1845. In 1858 he was appointed Chief of the Grand General Staff, and in the following year he accompanied the Austrian headquarters during the Italian campaign. As chief of the Prussian Staff he planned the invasion of Denmark in 1864. His magnificent generalship crushed the Austrian army at Sadowa in 1866, and in the Franco-German War he held the supreme command of the four great armies that simultaneously entered France. To him pre-eminently belonged the honor of that unparalleled and unbroken series of great victories, from the battle of Massenburg to the capitulation of Paris, which humbled the military power of France, inspired all Germany with patriotic pride, and led to the proclamation at Versailles of King Wilhelm as German Emperor—the dignity conferred upon him by the German nation, then, for the first time, to be welded and unified into one Empire.

IT IS AN INTERESTING CIRCUMSTANCE THAT NO FEWER THAN three of the thrones of Europe are, at the present time, occupied by children. Since the abdication of King Milan his son Alexander, who was born in August 1876, and is now consequently fourteen years of age, has been the titular ruler of Servia, though the country is really governed by a Board of Regents. In this connexion it will have been noted that, according to a Reuter's telegram "Ex-king Milan has expressed his willingness to leave Servia until his son ascends the throne. The Skupstchina has urged Government to induce ex-Queen Natalie to do likewise." Reuter does not deign to enlighten us as to any fresh complications which may have led to this step, but it has long been considered that the young king of Servia stands a very poor chance of ever ruling in his own name. The quarrel between his father and his mother has divided his partisans, while the pro-Russian party now dominant in Servia aims to displace the Obrenovitch dynasty to which King Milan and his son belong, and substitute the pretender Karageorgevitch. The present King of Spain is the second child king. Alfonso XIII is but an infant, and during his minority the normal head of the monarchy will be his mother, the Queen Regent Christina. His subjects have been hitherto withheld from revolutionary outbreaks by a certain sentiment of chivalry. But as the sovereign grows older this feeling will doubtless disappear, and it will prove extremely difficult for his supporters to make head against the Spanish Republicans on the one hand and the Carlists on the other. Then again, the close approach to universal suffrage which has recently been made in Spain must greatly strengthen the popular leaders, who regard a monarchical system with contempt and detestation. By the death of King William III the Crown of Holland has devolved on his daughter Wilhelmina, who is in her eleventh year. Here again the child's mother, Queen Emma, is temporarily invested with the royal functions. The girl-queen of Holland has

the best chance of the three of retaining her position, but her hour of trouble will come when her marriage is discussed. Her mother, who is a German and the eldest sister of the widowed Duchess of Albany, was previous to her marriage the Princess Emma of Waldeck, and she will naturally wish her daughter to marry a German Prince; but such a project is certain to be resisted by Russia and France, nor is it likely to be viewed with favour by the Hollanders, who dread absorption in the German Empire. There has been no nonsense in the training of the young girl-queen. Her mother has been her principal teacher up to the present time, particularly in music and horsemanship. Her instruction in reading, writing, arithmetic, French and English is divided among a number of teachers, every one of whom is strictly charged to treat her exactly as they would any other school girl. Indeed, any master or mistress who ventured to address the child as "Your Royal Highness" or even as "Princess" during the hours of teaching was threatened with the displeasure of the late King. When the princess becomes Queen in reality eight years hence, she will be one of the richest, if not the very richest, sovereign in Europe. The civil list of Holland, which is secured on the revenues of the Dutch colonial possessions, is about £3,000,000 a year. The princess is a bright, intelligent, clever child, with, it is said, a good deal of character and determination.

AN UNHAPPY FATE APPARENTLY STILL PURSUES THE FORTHCOMING Great World's Fair, which it is proposed to hold in Chicago next year. First, there was the long contest between New York and Chicago, which aroused disagreeable feelings; then there was the question of time and the wisdom of postponement; then the prolonged difficulties in selecting a suitable site; then the question of the kind and degree of national responsibility; then the doubt whether counties to whose industries the American high tariff was inhospitable would care to exhibit their products in a country which proclaimed that it didn't want them. And lastly the Force Bill threatened the Fair. It is indeed droll that, while the Americans propose to hold a great industrial exhibition to celebrate America and its discoverer,—at which it would doubtless be maintained that the national politics are the chief glory of the country,—it is these very politics which threaten the Exhibition with disaster. In New York before Congress had acted, the controversy had become a comical row over patronage and the control of the Presidential election, and it culminated in a certain celebrated meeting over the reports of which even strong men are supposed to have wept with inextinguishable laughter. It was a very remarkable comedy—this degeneration of a solemn international scheme of a World's Fair commemorative of Columbus and the discovery of America into a squabble over potential patronage. But it is no less comical that it should more recently have been regarded as a party enterprise and the participation in it of States of the Union be made dependent on the defeat of a political Bill pending in Congress. The argument is, in substance, not in form, that the Fair is a Republican enterprise, and as the Republican party in Congress was trying to pass a sectional Bill subversive of State rights, therefore no money should be granted for the Fair. The principle of such action is that if a proposed

appropriation for the most absolutely national and non-partisan purpose will probably prove of benefit to a party, the opposition party may properly defeat it. This, we need hardly say, would lead to some very queer results, as absurd as was the contention that the Democrats should refuse to countenance and aid the World's Fair because its executive administration is largely Republican and the Republicans were trying to pass a Force Bill. The Force Bill has now been disposed of, but the moral remains. It points to the fact that the American system of party politics has destroyed the capacity for patriotic action.

THE DEATH OF PRINCE CH'UN, THE FATHER OF THE PRESENT Emperor of China has been accompanied by two changes which betoken great alterations in the spirit, tendency, and avowed purpose of the powerful but inscrutable, and often invisible great personages who sway the destinies of China, surround the throne, and wield despotic power—yet are often unknown, not only to Europe, but to Europeans long resident in China. The first of these changes relates to the access of foreign Ambassadors to the presence of the Emperor. For Chinese this is accompanied by the Kotow or thrice prostration—a degrading ceremony to European eyes, though a mere matter of ordinary respect under Chinese conventions. Lord Amherst in 1816 refused peremptorily to submit to this in spite of unbroken Russian and Dutch precedents, and he broke off all negotiations in consequence. The continued refusal of the Chinese authorities was one of the causes of invasion in 1856 by England and France. The war brought foreign troops to Peking, but it was not until 1873 that, under a peremptory demand, the Chinese Government permitted an audience. Since then the non-age of two Emperors has been a convenient pretext for delay, and it marks a great advance that the young Emperor without waiting for a demand, fixed a time for an audience with foreign Ambassadors and received them a few weeks ago on European terms. The other change is the announcement that the able, advanced, and enlightened Li Hung Chang is to pass from his post as Viceroy of Chi Li, the first viceregal post in the Empire, and become a member of the Grand Council of State in Peking. Instituted in 1730 by the Emperor Yung Ching, this must not be confounded with the four grand secretaries of which Li is already a member as one of the two Chinamen on this Board. The Grand Council is, in many senses, the supreme executive power in the Empire. Originally organized for military purposes and composed of Manchus, it had at the beginning of the present year but one Manchu and four Chinese. Two of these are on the Board of Foreign Affairs. The translation of Li to this high post will be universally accepted in China, and by those intelligently acquainted with its affairs, as a proof that his liberal views are to be paramount, and, as a first step, the long expected extension from Tien-Tsin to Tunge-How is confidently expected. Li is an old man, and aging. He has had at least one stroke of paralysis but he is the ablest of his race, and his new post ought to enable him to overcome this bureaucratic resistance which has so long balked his better plans and frustrated his wiser policy.

A FEW WEEKS AGO REUTER BRIEFLY ANNOUNCED THAT THE

King of Siam had granted a concession for the construction of a railway across a portion of his dominions, but no details were given. We now learn that the concessionary is Mr. Charles Dunlop, who has been in Bangkok for the last six months negotiating the railway. The line will run from Singora to Kota Star, and from thence to Koolem—the two last-named places being in the province of Kedah. Singora is a port from which a large amount of produce is shipped, consisting of tin, false cardamums, hides, horns, dried prawns, cattle and a variety of other articles which now find a market in China, Bangkok and Singapore. The ruling authorities are Siamese and the inhabitants are chiefly Malays. The harbour is accessible for ships drawing twenty feet of water, and there is shelter from the China Sea off the Island of Pulo Tikus. The concession is a most important one in every sense of the word, for not only will the merchants of Penang benefit largely by the line, but it will also prove a convenience to the Siamese, as well as to the rulers of the Western Malay States who have hitherto had to approach their provinces by way of Singapore. As a means of shortening the route between Europe and China the undertaking will also assume importance. The district of Koolem, which will be opened up by the new line, is essentially a tin district, but has hitherto been very little developed. If well carried out, the line will reflect credit on the Siamese Government, and will doubtless prove remunerative to the promoter and his friends. As there is a prospect of the line passing through a coal country it will, however, be necessary to have a terminus at a port more in the vicinity of Penang than Kota Star, the capital of Kedah.

BY THE DEATH OF SIR TANJORE MADHAVA RAO ONE MORE connecting link between the India of the past and the India of to-day has been severed. To the present generation of ultra-reformers Sir Madhava Rao was but a name, and it had become the fashion to laugh and sneer at the somewhat old-fashioned but thoroughly sensible views propounded by the veteran statesman. We cannot, however, disguise from ourselves the fact that with these old-time Hindus is passing away all that is best in native society, and the rising generation—the school of whiskey, water and wind—gives but poor promise of creditably filling up the places thus left vacant. Sir Richard Temple spoke of Sir Madhava Rao as being, on the whole, “the best informed native in India.” In all matters of improvement he was enlightened, although he hardly approved of many of the social reforms now being advocated. He first won fame as the Minister of Travancore; then for a time he was in Holkar’s service, and lastly he became Minister of Baroda. He found that state seriously disordered by the Gaekwar Mulhar Rao, an infamous ruler; but he brought it within a few years into a condition of much prosperity. His conduct both in private and public life was exemplary, while his ability was of a very high order. He had, however, been out of harness for some years past, and beyond the circle of his immediate friends his loss will hardly be felt.

THE BENGAL GOVERNMENT HAS DECIDED TO APPOINT A COMMITTEE for the purpose of collecting information and making suggestions on the following points:—

(1.) The extent and nature of the poverty and destitution which prevail in the town of Calcutta among Europeans and Eurasians; (2) the various charitable institutions and the funds at their disposal for the relief of such destitution; (3) the best methods of relieving present destitution; (4) any means which may be devised for preventing its growth and increase in future.

In appointing the Committee Sir Charles Elliott is careful to explain that he neither commits the Government to accept any new financial responsibilities, nor proposes that it should attempt to occupy the field of private charity. Sir Charles expresses his belief that "private charity in Calcutta is amply sufficient to deal with local destitution, and mainly requires organization and direction," and these requirements should be met, if ever they are to be met, by the representative Committee that has been appointed. The Eurasian community might, it is true, have been better represented, but we may trust the Venerable Archdeacon Mitchell and Mr. W. H. Ryland to look after their interests, and to counteract the visionary and theoretical views too often propounded by their representative Association. It is perhaps not unnecessary to point out that in the course of this enquiry it should be borne in mind that simple charity, the giving of food and clothing without an equivalent, is, as a rule, the worst of all methods of relief. Gratuitous support is, of course, necessary in many cases, in which, in consequence of old age, sickness, physical deformities, accidental injuries, etc., labour is an impossibility. But in all such cases what is needed for health and comfort should be supplied through some recognized body or bodies, and no doubt it would be so supplied provided there was an efficient system by which the wants of the sufferers could be reliably ascertained, and some guarantee given that the gifts of the charitable would be properly used. But it cannot be too often or emphatically repeated, until the lesson is fully learned, that gratuitous relief to those able to work is—unless under special circumstances, which should be judged each case on its merits—a degradation and a serious moral injury. It is, of course, far easier to point out what should not be done than to offer an opinion as to what should. The question is a large one, but it has been successfully grappled with in Canada, and if the scheme of relief is intended only for Europeans and Eurasians there are many hints that might be taken from the Canadian method, such as the establishment of some kind of labour exchange in centres where men and women suffer for want of employment. It would matter little whether these employment bureaus paid expenses, or not. There are hundreds of citizens who would, we believe, most gladly contribute to make up any deficiency could they be put in a position to know what it is right to say and do when able-bodied men and women come to them for relief. Another scheme that has been tried with success is the establishment by municipal governments of public farms and public workshops in their towns, but the valuable time of our Municipal Commissioners, spent in squabbling amongst themselves and attempting to 'sit' upon their Health Officer, could not be taken up with the consideration of any such foolish projects.

DURING THE MONTH OUR TROOPS HAVE BEEN ACTIVELY engaged in Miranzai and on the Kohat border in quelling the Miranzai uprising. We see that, according to news received by the last mail, the English press has much exaggerated matters, and

the retirement of a small detachment is described in the papers as a defeat of the British forces. This refers, of course, to the incident reported from Kohat early in the month when the villagers who had up to that time been considered friendly together with large bodies of armed Pathans, simultaneously and treacherously attacked two small parties of our troops who were engaged in protecting a road-making party on the Miranzai frontier. On hearing the firing Captain Faskne hurried in the direction with a small party of the 3rd Sikhs and some frontier Militia and occupied the village of Aslai which was gallantly held for 24 hours against overwhelming forces of the enemy, but eventually had to be evacuated, as there was neither food nor water for the men. Reinforcements were immediately pushed on from Kohat, and the frontier occupied in strength. The rising was general all along the line, the attacking force consisting of Afridis, Akhels, and Mishtis. Our force, divided into three columns, numbers nearly 10,000 men, and is under Brigadier-General Lockhart, who assumed command on the 7th instant. On Friday, 17th instant, an action took place at Somana in which our troops inflicted heavy loss upon the enemy, our own casualties being 1 killed and 3 wounded, and since then the opposition to General Lockhart's advance has been fitful and spasmodic, although the troops have had, at times, some hard fighting. On the 19th instant the 3rd Column was continuously engaged with the enemy. On the 31st there was also some severe fighting in which the tribes lost heavily. All the Urakzai sections were engaged, but the other tribes wisely waited to see how the fight would go, and when defeat was apparent they retreated. Our troops under General Lockhart then continued to occupy point after point on the Samana Range, but only after severe fighting and considerable loss. On the 22nd instant severe chastisement was inflicted upon the Akels, and many of their villages and towers were destroyed. Meanwhile Colonel Brownlow, who had been left with the second Column in possession of the plateau of Mastaou destroyed the hamlets and towers of Ralia Khel. On the 24th a deputation from the Urakzai tribes waited on General Lockhart to negotiate, and hostilities were suspended, and it was generally believed that this was only the first step to submission to all our demands on the part of the enemy. The latest news at the time of writing is that the Afridis and Alikhal have asked to be permitted to send in *jirgas*, for which sanction has been accorded. From the Hazara Field Force news has been received that the Akazai country is quiet, being quite deserted. The troops went over the whole of the Upper Akazai country on the 24th instant. Taken altogether, it is thought that the Miranzai Campaign promises to be about the most brilliantly successful frontier campaign of recent years.

APEX.

CALCUTTA, 28th April 1891.



SIR JAMES FITZDOODLE : *I suppose I must leave you, as your husband will be jealous if he finds me here, but really you are so charming, I can hardly tear myself away.*

MRS. COLUMBIA : *You talk of jealousy, Sir James. How ridiculous. You will understand, when you have been in America longer, that American girls and wives are brought up to take care of themselves, and they do not need watching. In England you set a chaperone to watch a girl, and this shows distrust, and makes her shy. Use her as an intelligent, responsible being, and she will learn to rely on herself, and then—insult her at your peril.*

THE INDIAN EMPIRE.

Vol. IV, No. 2.—JUNE 1891.

THE POVERTY COMMISSION.

Each nation has, it is said, distinctive characteristics which are as unalterable as the sunny hue of the Ethiopian or the spots on the leopard's skin. Though a people may cross the seas in search of new fields, the climate and not the mind is changed. French colonists, we are told, commence operation by building theatres, Italians by raising churches, Germans with barracks, and the English by erecting courts of justice. Like all generalisations, the conclusions are too comprehensively sketchy, to be strictly accurate; and in the case of the English, the courts of justice have been introduced more to flatter the popular vanity than with strict regard to facts. Born a Londoner, I have yet travelled too much over our colonies not to know that, if we have a national trait, it is our overweening fancy for *Commissions*. There is no political difficulty, no calamity that affects our honor as a people, but we ride our hobby and consider it settled. We will be squared by the appointment of a Commission. In India, we are over-ridden with Committees and Commissions. I yet nowhere else are they such solemn farces. At Home, the public look for, and are generally rewarded with, some tangible result of the public deliberations. Here the mountains groan without the productions of even the proverbial mouse; the only outcome is an increase in the printing charges and the storage in the records of some Secretariat of piles of useless papers for white ants. Governed as we are it can never be otherwise. An important question that affects the welfare of millions assumes an aspect that requires immediate attention. The public, through the press, demand an enquiry, but the officials who hold the highest offices in the State are sojourners among the people; they rule only for a few short weeks and the investigation is delegated to a select few who have to be stewed while the great ones flit to the hills. If the examination be conducted with the care the importance of the subject demands, the evidence and report must necessarily be voluminous. In England, Members of Parliament with ample leisure would wade through the evidence, glad of any opportunity for airing their views:

there would be a discussion and a decision. Here, the report is submitted to the official who suggested the Commission, he passes it over to a clerk to summarise, as he has not time enough to read up the papers himself; months pass and the old report is lost sight of in the appointment of another Commission. This may appear a hard saying; but consider the Education Committee, the Currency Commission, the Finance Committee, the Public Service Commission, the Factory Commission and the other half dozen Committees between, and it will be admitted that I am not far from the truth. If, however, no tangible benefit has yet been derived from the consideration of public matters by public Commissions it must still be admitted that all started with a promise of good. It has been left to Sir Charles Elliott and the Poverty Commission to show the farcical nature of such enquiries, and the demonstration is not edifying. While the nobility and the people of England are troubled at the increasing poverty among the masses, while the Americans, Australians, and even Russians are striving rightly or wrongly to protect the laborers from destitution, our Lieutenant-Governor meets the cry for help from an important section of this city's population by appointing a Commission, and critically declaring that he cannot promise any other State aid. English may like courts of justice, but they are engineering destruction for people driven desperate.

The growing misery of an important section of the population calls, however, for more serious attention than it has received from the press, or is likely to receive from Government. It is our own flesh and blood that cries for assistance, and I consider the silence of the press in this matter one of the most striking proofs of the debasement of Indian journalism. Of course the *Pioneer*, being ostentatiously an official organ, cannot afford to risk its position by concerning itself with creatures who cannot supply early news; the *Englishman* thinks it a disgrace to interfere with "mean whites," the *Indian Daily News* is too busy with volunteering and the incinerator to care for shrinking poverty, and the *Statesman*, forgetful of its traditions, is more interested in European affairs than with its immediate surroundings. If a British expedition into Africa to supply the poor negroes with New Testaments were fixed upon by some Portuguese, and Bismarck had lauded the aggressors, few contemporary papers would refrain from their columns of frothy flapdoodle; but help to the hungry in our midst, why, that is another pair of shoes. True there are class journals which make a speciality of Eurasian grievances, but their power for good or ill is exceedingly limited. When a paper exists avowedly to represent the wrongs of any body, *senior canens cautilenam ad-nauseam usque*, people soon learn to regard and avoid it as a bore of the first magnitude. The disabilities of a community should be discussed in the public journals, and if they are not the greater the shame to the gentlemen of the press.

While those who should be our watchmen slumber, it will be difficult for me, an outsider, and one moreover unaccustomed to writing for publication, to plead the cause I have at heart within the limited space of a magazine article. I shall, however, try. First let me clear the ground by defining exactly the class of persons who require relief and for whose benefit the Poverty Commission is intended.

mission is principally intended. The terms, 'Eurasian,' 'East Indian,' 'Mean White' are not only too vague, but are distinctly mischievous to the interests of the real sufferers. In years gone by the Eurasian was known by the *euphonious* term, "country-born." They were recognized as Europeans, and the recognition carried with it certain privileges. Considering that the majority of them represented the descendants of the officers of the East India Company, of men who made their homes and lived and died in the country in which their lives had been passed, it was only right and proper that they should have some share in the official loaves and fishes. Their privileges, however, led to the growth of another class, mostly native converts, who changing their faith took to themselves European names, Chatterjee becoming Chatterton, Bannerjee Bannermann, Kali Kelly. With not a drop of European blood in their veins they yet contrived to pass themselves off on the unwary as Eurasians, and their scandalous lives led to the saying that East Indians had none of the virtues of Europeans, but all their vices as well as those of the natives. Their representatives exist in undiminished numbers, but as they are natives, pure and simple, I shall simply refer to them and pass on.

The subject of this paper will be the Anglo-Indian—the "country-born" of former days; people of an admixture of Indian blood but bred as Europeans. They, as before, are generally descendants of the servants of the old East India Company, and it is their exclusion from the public service that has given rise to the poverty that is to form the subject of, or consideration by, the Commission. In former days the subordinate official posts were regarded as theirs by right. The European officers of the Company labored in the secure conviction that their services would not be forgotten and that their children would be well provided for. It was recognised that in commerce and trade the majority of billets would be reserved for the friends and relatives of the adventurers; and the Company decided to take care of the offspring of its own servants, who would otherwise be unprovided for and be ultimately a source of danger to the commonwealth. That the scheme worked well can scarcely be doubted by anyone who takes the trouble of studying the past history of the country. On the only case for regret is that the liberal policy of our former masters has been changed.

When the country passed over to the Queen, the Government, urged no doubt by the best of motives, laid itself out to please its Indian subjects. The State undertook the public education and then commenced that wholesale manufacture of native B.A.'s and M.A.'s that has brought our University Degrees into such contempt. That the extension of education among all classes is a good thing I shall not attempt to deny, but there is a vast difference between the education of the masses and the free education of a particular section of a community for the higher University Degrees. This might properly have been left to private enterprise, and it might safely be assumed that people who were anxious for higher education would obtain it without State assistance. Yet the Government provided separate colleges for Hindus and Mahomedans in which Indian youths were trained for degrees, free, while the Eurasians were left in the cold to get on how they could in their own expensive institutions. I am aware that it has been urged that the Govern-

ment colleges are as open to Christians as to Bengalis ; but I regard the contention as an idle one. I shall not stop to justify it, but the fact remains that there is a prejudice among Europeans against promiscuous intercourse of their children with natives and as long as the feeling lasts the education of Hindus and Christians side by side will be an impossibility. And surely the Government that is so tender where the prejudices of Hindus are concerned should be the last to disregard those of its Christian subjects. In any case the educational policy of Government was a mistake, considering that it not only handicapped but encouraged competition against its own race, against the children of the men who had built up this empire.

I dare say that I shall be accused of illiberality, but compare the action now being taken in Russia, America, Australia, and even England with the doings of the Indian Government. In Russia where the domiciled Jews were competing rather too successfully with the natives, an Imperial *ukase* has started a new exodus ; in the United States of America Chinamen are not allowed to land, as they undersell the white man ; in Australia, the Hindu as well as the Chinaman is regarded with disfavor ; and even in free England cheap German competition is allowed to operate against the Briton. The only country in which the Chinaman cannot compete successfully is India, because the Indian can live on and work for less than the Celestial. And yet it is this very Indian that a British Government aids and encourages to compete against the Eurasian !

The great stumbling block in the way of the Government is, it is averred, the Queen's Proclamation of 1st November 1858, in which occurs the following passage :—

"And it is Our further Will that so far as may be, Our subjects, of whatever race or creed, be freely and impartially admitted to offices in Our service, the duties of which they may be qualified by their education, ability, and integrity, duly to discharge."

No nobler order than this has ever been issued, and yet none has ever been so disregarded. I have shown that the native has been unduly favored in education, but yet I would not complain were the provisions of the Queen's Proclamation strictly observed in other respects. Though the Eurasian has to pay ten times as much as the Hindoo for the education of his children, the money is ungrudgingly spent, in the hope that the outlay will bring a good return in the future. The Eurasian youth grows up, competes successfully against the state-aided Hindoo, and is admitted into a Government office. In most cases he will find that though he has been compelled to pass an examination, a number of pure Europeans have been admitted without any test. Time passes, and the Eurasian is required with his *confrères* to undergo other examinations, but do what he will, excel though he may, nothing will prevent his supersession by those with whiter skins than his own. I know of one Department of Government which holds out hope of advancement by merit, but it has been proved to me that merit is synonymous with color. The Department makes a speciality of frequent and searching examinations, but it has been shown me that those who have stood highest in the examinations are Eurasians, and that they are still in the subordinate ranks ; while Europeans who have

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got through the tests by the skin of their teeth, after a few months' service have been promoted to the superior grades. What about the Queen's Proclamation here? These things are done openly, but to stifle the protests that would be made by natives, if they were not in some way compensated, the pickings of the lower grades are given to Indians. And between the Bengali and the European the Eurasian goes to the wall.

Let us now review our position. The State educates natives while the Eurasian has to pay high for his training. Trade and commerce are daily extending, but the Eurasian can have no share in them, because the only posts that will support persons bred to European habits and modes of living are reserved for the friends and relatives of the traders and merchants. Nor can he start a trade of his own for want of capital. His ancestors, secure in the hope that their children would be provided for by the State, accepted salaries that barely sufficed to support themselves and to educate their offspring. Shut out then from commerce, the Eurasian can only turn to Government for work, but owing to the partial treatment of Europeans and natives now in State employ he is being "crowded out." The struggle for existence grows severer daily, the cost of education and living is rising perceptibly, and the Eurasian's position grows worse hourly; not because he is not meriting in merit, but because he, like Hamlet, lacks advancement. There is a distinct order that for appointments of less than Rs. 200 monthly no European is eligible. Some officials openly set the rule at defiance, while others regard it as an injunction to give pure Europeans not less than Rs. 200, and all appointments with lower emoluments to pure natives. The Eurasian is nowhere. Like the pariah dog he is neither *ghur ka ne ghat ka*. His children will be worse off than he is, and the hardships will proceed till another Poverty Commission sits. Poverty Commissions! Faugh! Not Poverty Commissions but Christian Charity, strict impartiality, and bold statemanship only will put matters right.

BARGO.

SCIENCE NOTES.

THE EFFECT OF FREEZING UPON IMPURITIES CONTAINED IN WATER.



extent to which ice is used makes its importance in relation to health almost as great as that of water. An idea prevails that ice cannot be impure from whatever source it is obtained, as it is supposed to "purify itself" in freezing. About ~~the~~ ^{the} is thought of is temperature, and ~~and~~ ^{and} ice is cold, little else is considered. Here is an error that has been the cause of much mischief, and as the iced drinks are sipped, their refreshing coolness drives away all thoughts of possible impurities.

Regarding the effect of freezing upon impurities in water, experiments with seventy-six samples of water and 336 samples of ice from fifty-eight localities, have recently been published at home. In ice from polluted sources compared with water from the same, the experiments showed: 1. That in the ice the color and salt had been removed. 2. That all but 13 per cent. of the other impurities of the water, as shown by chemical analysis, had been removed. 3. The number of bacteria in the cubic centimeter were: For snow (one sample,) 1,246; for clear ice (part of the same cake as above), 6; for clear ice from an unpolluted source, nil. 4. The average of 12 samples from the most polluted sources, 138. The number of bacteria varied much in different parts of the same cake.

From the examinations which have been made, it appears probable that when ice first forms on the surface of a pond or river, a considerable part of the impurity in the water near the surface is entangled in the first inch or less in depth, and that the ice which forms below this first inch contains but a very small percentage of the impurities of the water. If snow falls upon the thin ice, causing it to sink so that the water from below saturates the snow, it will freeze without purification; or if rain falls upon the snow and freezes, the ice thus formed contains the impurities of the snow and of the rain water, and of whatever else may have settled out of the air. The method often pursued, of flooding the ice of a pond or river by cutting holes through it, gives a layer of ice as impure as the water of which it is formed.

The purifying effect of freezing is greater upon substances in solution than upon those in suspension. This is confirmed by the fact that a large part of the organic matter, one-half or three-quarters, and sometimes more ^{is} found in good ice, is of

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particles in suspension, and is readily removed by filter paper. From the average of all the water and ice used for ice supplies, which they have examined, they find: The organic impurities of snow ice (the sum of the ammonias) = 69 per cent. of the impurities of the water. The organic impurities of all the ice (except snow ice) = 12 per cent. of the impurities of the water. The organic impurities of clear ice = 6 per cent. of the impurities of the water. The color of waters was removed by freezing. Of bacteria there were: 81 per cent. as many in snow ice as in the waters; 10 per cent. as many in all other ice as in the waters; 2 per cent. as many in clear ice as in the waters.

The results obtained lead to these conclusions: That while clear ice from polluted sources may contain so small a percentage of the impurities of the source that it may not be regarded as injurious to the health, the snow ice, or any other, however clear, which may have been obtained by flooding, is likely to contain so large a percentage of the impurities of the source, and with these impurities some of the disease germs which may be in the source, that the Board feels bound to warn the public against using ice for domestic purposes that is obtained from a source polluted by sewage beyond that which, would be allowable in a drinking water stream or pond, and that in general, it is much safer to use for drinking water and for placing in contact with food, that portion of the ice that is clear.

THE END OF THE WORLD.

It would seem impossible that, in our epoch of civilization and progress, there could still be found people to announce the approaching end of the world, and, what is much more extraordinary, that there could be found other people to give credence to them. Such is the case, however. A few charlatans, who perhaps descend from the middle age astrologers, whose ridiculous methods of divination they doubtless employ, have recently predicted that the world is shortly to come to an end, the date being fixed by some at 1898, and by others at 1901. These grotesque predictions, born of ignorance, have suggested to a writer in *La Nature* the idea of succinctly presenting the rational causes that, according to the present state of scientific knowledge, might lead, not to the end of the entire universe, but only to that of our world—that is to say, to the disappearance of life from the terrestrial globe.

At the present day, the public shows itself very incredulous upon this subject, but it was not always thus. In the past ages, when the absurdest superstitions reigned, the astrologers found no difficulty in making people believe their idle tales. The year 1000, for example, is especially memorable for the great terror that extended over France and entire Europe at the announcement of the end of the world. The advent of comets and the eclipses of the sun and moon were the chief pretexts for the frightful astrological predictions. The mortal terror with which France was seized in 1564 upon the news that a total eclipse of the sun was to occur, has remained particularly celebrated. The people, believing that the end of the world was at hand, ran to the churches in crowds to confess. A certain chronicler of the time tells us that a country curate, not being able to fulfil his task, was obliged to say to his parishioners:

"My brethren, don't be in such haste; the eclipse is postponed for a fortnight!" In reality, there is nothing very alarming in the prospect of the ending of the world. That happens to every man on the day of his death, and the supreme event would not be any more terrible if it happened to all on the same day.

Terrestrial life depends entirely upon the light and heat of the sun, which is the sole source of its maintenance. It is therefore with the star of day that we have to begin the strange tableau of the probable causes of the end of the world.

THE SUN, ITS SPOTS AND ITS FINAL EXTINCTION.

The surface of the sun is often strewed with black spots, the smallest of which are as large as the diameter of the earth, and the largest of which are sometimes visible to the naked eye. These spots, which are variable in number and position, mark regions in which the luminous and calorific activity of the sun is in a state of temporary diminution. As the great radiant star is an incandescent mass (1,372,000 times more bulky than the earth) that unremittingly distributes its elements of life around it, it is continually losing (though slowly, it is true) the powerful energy that is stored up in it. A day will come in the distant ages when the spots that are already darkening the sun will ~~cover~~ ^{mark} its entire surface. A solid crust will afterward form, as one has ~~been~~ ^{been} formed upon the earth, which also traversed these phases of life of a star, for our earth was a sun that had the moon for a planet, and perhaps even (according to Mr. Stanislas Mennier) a second satellite that is now broken up. The sun will therefore be extinguished some day for want of fuel, but that fatal date will be far in the distant future, for we can estimate the time necessary for the extinction of the sun at more than twenty million of years, and the time during which a state of life analogous to the present one will be able to exist upon the earth may be estimated at half that period.

Long before the end of these far distant epochs, the progressive decrease of the solar heat will cause the glacial zones of the poles to extend toward the equator. Man, remaining almost alone upon the debris of terrestrial life, after having reached a transcendent civilization, will employ all the resources of his vast genius to fight a supreme battle with death. Perhaps he will then descend, one by one, the steps of his physical and intellectual development, and lead the miserable life of the Laplander and Esquimo under the equator.

Then, the last human family exhausted by cold and hunger will sleep its eternal sleep upon the frozen and depopulated earth.

Although the existence of animate beings is still far from being endangered upon our planet through the extinction of the sun, the terrestrial world is none the less exposed to

CATASTROPHES OF OTHER KINDS.

When a brilliant comet appears and grows in magnitude in the depths of the heavens, popular superstition beholds in it an omen of dire misfortune, without knowing the only danger that the haired star threatens us with is—that of a collision.

We may find examples of this superstition in ancient as well as in modern times. Here is what we may read in Pliny, and which relates to the comet of the year 48 :

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"In the war between Cæsar and Pompey, we saw an example of the terrible effects that the advent of comets carries in its train. Toward the beginning of this war, darkest nights were illumined, according to Lucan, by unknown stars; the heavens seemed to be on fire; glowing firebrands traversed the depth of space in all directions, and the comet, that appalling star, which overthrows the powers of the earth, exhibited its terrible coma."

These superstitious terrors inspired by comets have exerted their influence in our own age. The famous Encke's comet, that appeared in January, 1819, was the cause of lively apprehension in France, where sinister prophecies had been disseminated. At Paris, the provisions of the end of the world were taken more pleasantly, and songs and caricatures were made concerning it.

Among the millions of comets that are submitted to the attraction of the sun there are relatively few that approach the radiant star as far as to the orbit of our globe. The majority of the immense comets that occasionally traverse the heavens should therefore leave timid people indifferent. Those which in their trip around the sun pierce the plane of the terrestrial orbit, can alone menace us with some danger. We know that these celestial bodies have a very irregular course and a most erratic conduct, for the least attraction of a neighbour suffices to swerve them from their primitive route and make them approach the disturbing mass. In order that a collision may occur between a comet and the earth, the orbit of the first star must intersect the orbit of the second, and the latter must be at the point of contact of the two orbits at the time of the passage of the comet. It will be understood that such a combination of circumstances, although possible, has few chances of occurring. In fact, when a comet appears that is to approach the sun as near as we do, a calculation of the probabilities demonstrates that out of 280,000,000, chances, there is but one that it will collide with the earth!

We can consequently remain very tranquil on this subject. Yet, since we are assured that such a collision is among the number of facts possible, let us see what might be the consequences of this celestial meeting of the earth (travelling 18 miles per second) and a comet that had at least an equal velocity. If the comet had a consistent *nucleus*, the terrestrial crust would be staved in by the impact, and the torrents of lava that it conceals would produce a terrible commotion in contact with the waters of the ocean. In addition, the axis of the earth would be abruptly displaced. This is the sole plausible hypothesis to explain the inclinations of the axis of planets upon their orbit; but it is only right to say that no comet with a consistent nucleus has as yet been observed.

Were the comet formed of dense gases, it would cause an enormous pressure upon our atmosphere, and would bring on a hurricane a hundred times more terrific than the great cyclones, and would level the surface of the earth. It might also render the air unsuited for maintaining life by altering its chemical composition through the introduction of a new gas, or kindle an immense fire, such as the temporary stars sometimes offer us the spectacle of.

It is difficult to imagine the frightful consequences of such cataclysms for the animate beings who would be liable to perish amid this chaos of unchained elements. Shooting stars, those strange

meteors that shine for scarcely a second in tracing a line of fire upon the celestial vault, are now considered by numerous astronomers as having a cometary origin, they being, so to speak, the debris of the haired stars. There exists a convincing example of this that will prove to us the possibility of a collision between the earth and the erratic bodies under consideration.

In 1832, Biela's comet, which accomplishes its revolution around the sun in the short period of six years and a half, intersected our orbit on the 29th of October, at the point that the earth reached on the 30th of November, say a month later. At the time of its appearance in 1846, the comet had divided into two, and in 1852 the twin comets were observed travelling together. Since this last passage, astronomers have not seen Biela's comet, but on the 27th of November 1872, at the epoch that it crossed the terrestrial orbit, we traversed a mass of cosmic dust, which, on penetrating our atmosphere, gave rise to a true shower of shooting stars. On the 27th of November 1885, we beheld a new conflagration of the heavens. Here, then, we have a demonstrated collision between the earth and the debris of a comet—a collision that will be repeated under the same conditions in 1898, a fact that has furnished an improvised scientist an occasion to announce the end of the world at that date. Let us hope that God will protect our globe for numerous ages by preventing it from running against a good, healthy comet, and let us see what are the

OTHER DANGERS THAT THREATEN TERRESTRIAL LIFE.

Before reaching the present period of its history the earth passed in succession through great geological phases, during which its continents and seas were several times deranged by the internal forces that its nucleus of matter in fusion developed. None of these revolutions has been able to destroy the powerful germs of life, and it is to-day more impossible than ever for a geological cataclysm to cause such a result.

The most important of the historic catastrophes of this kind is contemporaneous. We refer to the gigantic eruption of Krakatoa in 1883, which claimed 50,000 victims and totally transformed the configuration of the strait of Sunda. Despite their great violence, such phenomena are always local, and consequently without untoward influence upon animate beings collectively. The internal activity of our planet is now greatly reduced. So the earth has entered upon the calm period of its existence. A rapid examination of this progressive diminution of internal energy is to lead us to a particularly rational solution of the problem of the world's end.

When the solid crust of our globe formed, it surrounded an incandescent fluid spheroid, which afterward condensed toward its centre under the action of cooling. In measure it contracted, this nucleus diminished in volume, and the external covering gave way in places and cracked in order to follow the motion of shrinkage. It is in this way the large folds were produced that formed the principal reliefs of the surface. Consequently, the terrestrial crust, having become thicker, will be covered with enormous crevasses through which the oceans and atmosphere will be gradually absorbed in the numerous internal spaces.

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The surface of the moon, deprived of air and water, with the immense furrows that traverse its plains and mountains, presents the spectacle of this beginning of rupture, for our satellite is more advanced in development than the terrestrial globe.

Having passed this stage, the dead star, cracked in all directions will break in pieces, and the fragments will be scattered along its orbit.

This destiny of the earth is still a thing of a very remote future. Yet it seems as if the natural evolution of our globe will cause the disappearance of life long before the extinction of the sun. It is moreover, easy to see that in the geological epochs lost in the night of ages the vital forces were more powerful than those of our day. We have a proof of this in the exuberance of life that then gave birth to animals and plants beside which the present gigantic beings are but dwarfs.

The day on which through such general weakening of vitality man will have fallen into a physical decadence that his refined intelligence will not be able to supply the place of, will probably be also the day on which the last representatives of our race and of the entire creation will have to live in the bowels of the earth in the pursuit of air and water, which will slowly descend toward the centre of the earth.

Deprived of atmospheric fluid, the surface of the globe will thereafter have for temperature only that of interstellar space, say a hundred Centigrade degrees below zero! And while our human race will be re-immersed in the nihility from which it had emerged for a few thousands of centuries, other humanities will succeed one another upon the innumerable stars that people infinite space.

NATURAL HISTORY NOTES.

THE PRAYING MANTIS.

(BY BIS COBRA.)



FOUND it clawing the air in an inane fashion on the top of a dry geranium twig. Seizing it triumphantly I bore it off to my study. "You shall furnish me with copy, my fine friend," I said.

There is a sort of fret-work carving at the back of my writing-table, the mantis has climbed up to the top of this, and is standing there with folded arms waiting to be photographed.

It is about two inches long, and of a dull, straw color. Four legs and two wings spring from the middle of its body. On its back are two curious-shaped metallic-looking projections. I wonder what the use of them is! The neck is very long and supple, and the head is perched on the top of it like a cocoanut on a palm branch.

Certainly the mantis has a very human-looking face. At least this one has. It reminds me of a man I used to know once. The

mouth is very small and round like a pin's head. If anything, it is broader lengthways than breadthways.

Apparently the mantis has no ears. In their place two long drumstick-looking things hang down on each side of the face to below the chin, like a pair of extremely long earrings, in fact. The eyes are huge, but quite dull and glassy, the nose is well shaped.

Does it eat and drink like other folk? I rise up and fetch a small bit of bread and a glass of water. I dangle a morsel of the bread in front of its nose. The arms, which have been hitherto folded in prayer, suddenly shoot forth and clutch the proffered food.

Now I see the use of the drumsticks. While the bread is held firmly in the hands, they are used to wrench tiny morsels from it, and convey them to the mouth. An elephant with two trunks would, I think, use them in like manner. It is marvellous to see the rapidity with which these feelers play upon the bread. The mantis seems to be, I am sorry to say, a glutton.

But even a glutton must be satiated sooner or later, and after a while the remainder of the bread is dropped. The mantis falls back into its old attitude of supplication, only the head hangs to one side with a sort of self-satisfied look of the face.

I pick up the rejected morsel, and again dangle it in front of the insect. The arms are thrust forward again to snatch it out of my hand, and throw it away. A look of great disgust comes over the creature's countenance, and the arms are not folded again, but are kept rigidly sticking out, as if to prevent any more food being brought near.

"It has had too much to eat; I wonder if it will suffer from indigestion," I say to myself.

Of a truth this mantis is great fun! I think I will keep and tame it. It shall make sport for me every day after dinner.

Now to see if it can drink water as greedily as it eats bread. I pour out three or four drops on the table and gently picking the mantis off its perch, I place it near the spot. It marches straight to the water, puts both its paws into the liquid, and begins to lap it up with a long black tongue, which is not unlike that of a butterfly.

By Jove! it can drink. The three or four drops are soon exhausted, and I have to pour out some more water on the table. The attitude in which it drinks is just like that of a bear. Every one doubtless has noticed a bear drinking. Both the paws are first thrust into the water, and then the head is dipped in between them.

But, my friend, you have had enough, your stomach is visibly swelling; if I let you go on, you might "burst" and there would be an end both of you and of my "copy." So I drag it away from the water, and it wanders aimlessly about the table.

Its mode of progression is somewhat peculiar. When its arms are first folded, the front legs are then stretched out to their utmost extent, and the body carefully balanced on them, the hind legs being lifted off the ground. These hind legs are after this slowly pushed forward, and at length placed down just behind the front legs. One can imagine how fast it goes at this rate. The progress of those Hindu *fakirs*, who measure their length from Gungatri to Hurdwar, could not be more painfully slow.

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Can the beast swim, I wonder. Flop, in it goes into the glass of water. The arms are no longer kept folded, but assist the legs in kicking up a shindy. Phew, what a storm in a tea-pot! But it is a shame to torment the poor creature so. There is no doubt whatever that, though it may be able to swim, it detests doing so. I place one end of my pen in the water, and, as quickly as it can, it scrambles on to the edge of the glass.

How miserable it looks! The four legs are grasping the edge firmly, and using them as a pivot; the body has swung into a perpendicular position, and looks like a miniature astronomical telescope pointing to the Pole-star. A great drop of water has gathered in the place where the tail ought to be.

The mantis stands drying itself in this absurd position for nearly a minute. Suddenly the great drop of water falls into the glass, this seems to upset the insect's balance, for the head goes down and the *tail* part goes up, and it falls headlong from the edge of the glass on to the table.

Really this is killing. I shall never forget the look the mantis wore when it came to itself, and began to feel its head carefully with both its hands to see if any bones were broken. I never thought to have got such fun out of an insect barely two inches long.

You may search the whole world round and never find such a human-looking beast. I think, I will go into the verandah and search among the geraniums. Perhaps I may find another mantis. A fight between two of them would be most interesting. Or supposing them to be of different sexes, they might make love to each other. Ha! ha! ha! the sight would, I think, make even a Hamlet laugh naturally.

Accordingly, I go into the verandah and search high and low for another mantis, but I cannot find one. So I return to my study.

Lo! my original mantis has disappeared.

A HIMALAYA LEGEND.



"THE ROCKING STONE AT THE AGLAR."

WE crave the indulgence of our readers when asking them to follow us when reading about the "rocking stone!" No argument nor fact, like matter of fact! Do not be startled at the heading, a "rocking stone!" We have seen it scores of times, and taken many others to see it. It has braved many a flood and storm, and still it stands in the valley of the Now Aglar, not a hundred yards from the river bed! We first saw the stone in 1852—nigh 40 years ago, and if we are to believe the legend the Paharias attach to it, it must have stood where it now stands for more than a century. Like every story, it has a tale attached to it. Are you a sportsman, reader, fond of exploring the woods and wilds in search of sport or the picturesque? It is only travellers who see the marvellous, and can relate adventures by flood and field—these you have in the valley of the Aglar. Many go along it, and across it, when taking a trip to the interior, to the islands. You may ask where is the valley? Never heard of it? For shame! don't you know it? 'Tis on the Himalayan Highlands, running or skirting along the banks of the river Aglar. The river has a long course, flowing through many deep gorges right along the district of Gurwhal. In fine weather, when streaks of blue skies and sunshine prevail, it is a charming place to travel along. As you speed on and begin to reach the upper, or higher altitudes, you see almost impenetrable forests and inaccessible mountains. You pass now and again cataracts, lovely waterfalls, tumbling about in all directions, wild beasts now and again you meet, and many are said to dwell *perdu* in horrible caverns and terrible jungles. Now and again the gigantic mountain eagle, (the lamergyer) passes screaming over your head, and under your feet are abysses as formidable in depth as the mountains above are appalling in altitude. We shall never forget the first time we entered the valley of the Aglar. We were three—remember all young, in the prime of manhood, and with spirits as uncontrollable as a striped hyena! We were bent upon enjoying ourselves, and had nothing, we believe, could have turned us from our project. "rah! a trip to the snows. In vain did some croakers try to preach to us the dangers of the journey, and the difficulties of the road. Go we would, and go we did, and we can never forget it, for it was during our first march we came across the "rocking stone!" Yes, it is many many years ago since then—time flies so rapidly.

"Years steal fire from the mind, and vigor from the limb"

"And life's enchanting cup but sparkles near the brim."

As we have said before, it has been known to us since 1852, and if we are to believe the tale the Paharias relate about it, it must have stood where it now stands for generations. The legend about the "Rocking Stone" is as follows—Many, many years ago, a flourishing village stood a few hundred yards from the site of the "rocking stone." The ruins of the village are still plainly visible; we have seen them, but no centenarian now alive can recollect having seen the village in days gone by, nor do they know the name it bore. In the village in question, it is said, two brothers resided. Both were giants, and boasted of their individual strength. A trial was agreed upon, to be made before the entire village. The elder brother took up a very large stone from the hill side, and placed it where the big foundation of the rocking stone stands, the younger brother took up another stone somewhat smaller, and placed it on the top of the bigger stone. Rounds of applause greeted this feat; there were many "Ram, Rams," and "Wah, Wahs" uttered. Up came the elder brother again, and, with apparent ease, lifted off the smaller stone from the upper, and placed it upon the ground. The younger tried in vain to replace it, when after a time, up went the elder and put it back again, thus proclaiming himself the "Roostum," and since then the "rocking stone" has stood as a specimen of what giants could do in by-gone days! A gentle push causes the upper stone to sway or rock upon the lower. The wonder is that some mischievous Paharia boy has not long ago toppled the stone over, but Paharias are not gifted with a spirit of Vandalism, and hence, we presume the "rocking stone" has stood as a monument of the strength of by-gone ages! We have related the story as it has been told to us, but subsequent events that have transpired (within our own knowledge) not many years ago, have revealed to us the true origin of the rocking stone, and after reading further on, our readers, we feel assured will agree with putting the same construction as ourselves upon the true origin of the rocking stone. Some ten years ago, a boy herding cattle in the valley during the rainy season in the vicinity of the "rocking stone" took shelter upon it, as "monarch of all he surveyed," and noticing the water as it rained heavily rushing into a hole at the base of the big stone, inserted this stick into the hole,—down, down it went ever so far, when at last, it struck against some thing hard, and there was distinctly heard a *ring*; again, and again this occurred. Satisfied that some thing was buried there, he filled up the hole, collected his cattle and drove them home. Soon after reaching his village and when all was quiet, he told his master "Dhurrum Sing," the Lumberdar, or head man, what he had seen and heard. The old man enjoined silence, and when shades of night had set in, master and boy set off for the "rocking stone," one carrying a torch, the other a pickaxe to dig. In due time they arrived. They began digging, when some few feet below the surface they came upon a large brass ghurra, the mouth of which was soldered up. "Help me," said the old man to the boy, "to lift the ghurra out, as it is very heavy." The prize once out, away they returned to the village, reaching home after midnight! Soon after, curiosity prompted the old man to open the ghurra, when to his surprise he found it to be full of silver coins,

(the old Gurwhal rupee), as well as gold and silver ornaments! His delight can well be imagined. He bound the boy then and there to secrecy, and to tell no one of his find. As time rolled on, and travellers passed the rocking stone, they noticed the excavation at the base of the stone, and naturally concluded that some thing had been found and removed, and the news spread far and wide; till it soon reached the ears of the "Teree Durbar," that treasure trove to a fabulous amount had been found, and that "Dhurrum Sing," the Lumberdar of Dhungorha village was the lucky finder! The night after the find old "Dhurrum Sing" again opened the ghurrah, and found it contained 1,000 silver coins, also several gold and silver bangles, probably amounting in value to some Rs. 3,000. In case of a surprise and a search, he buried the ghurrah under the flooring of his house, and quietly chuckled over his luck!

On the news reaching "Teree" of "Dhurrum Sing's" find, the Rajah immediately sent two chupprassies to fetch "Dhurrum Sing." In due time he arrived, when in open durbar he was taxed with the find and ordered to produce it, or pay a fine of Rs. 500! It was in vain for him to swear on his son's head, that all he had found was an empty ghurrah, his tale was not believed—treasure he had found, and must produce it, or go to jail until he paid the fine. The money not being forthcoming immediately to prison he went, and whilst pining there, we must apprise our readers of what in our opinion was the origin of the "rocking stone," and we think they will agree with us in disbelieving the story of the giants! No doubt the wealth found at the base of the "Rocking Stone" had been hidden by some one who owned it and who had lived in the village, and who had buried it, putting the two stones over it as a mark, and that the secret of the hidden treasure had died with him who buried it.

But let us return to "Dhurrum Sing." He did not like his new abode in jail, so managed to borrow Rs. 500 at "Teree," and paid his fine, when he was released and returned to his village. His flocks and herds flourished. People chaffed him about the find, but he steadily swore he had found nothing, "Oh, well," said the old men, "you have found nothing, but recollect, you have sworn to this by your son's head, and if it is false, something terrible will happen either to you or to him!" When the story of the find was noised about, I went with a party of two other Europeans to satisfy ourselves of the rumour, when sure enough we saw the excavation at the base of the stone. "Dhurrum Sing's" son's name was "Oomer Sing," and he was a fine strapping fellow about 22 and used often to accompany us to shikar, of which he was a devoted follower.

About three months after the find of treasure and when all seemed prosperous, a sad event occurred. Not far from the village was a precipice. The herd boy at early morn saw a black object, which he thought was a porcupine, go into the cave, and speedily told his young master "Oomer Sing," what he had seen. A porcupine's flesh is much prized by the Paharias, so the young shikaree was bent upon killing it, and thus made his plans. He left home with a small axe, and told his servant to follow him with pine wood sufficient to make a torch. On reaching the precipice they clambered along until they got to the mouth of the cave the porcupine had been seen to enter. "Oomer Sing" told his servant to

enter the cave with a lighted torch, turn out the porcupine, and as it made its exit, he would secure it. All being ready, in went the servant, but to his horror, he found a big bear inside. Up it jumped, knocked the torch bearer over, and skidadled out! At the mouth of the cave stood "Oomer Sing." The moment the bear saw him up he stood on his hind legs, seized "Oomer Sing" in his arms, and over the precipice they went in each other's embrace!

"They tug, they strain, down, down they go"

"The bear above, and "Oomer Sing" below!"

The fall was a tremendous one. The bear seemed little the worse, but "Oomer Sing" had his skull fractured, and was carried senseless to his village and died that day! Poor "Oomer Sing!" The sad news spread far and wide, and one and all exclaimed, "See what a punishment has befallen Dhurum Sing for swearing a false oath, and this upon his son's head."

Dhurum Sing still lives, an aged man, and has ever since been associated with the "rocking stone!" If curiosity should prompt your readers to wish to see it, there it still stands and on enquiry, you will have no difficulty in having pointed out to you the "rocking stone" of the Aglar.

HILLS, NORTH OF DEYRAH.

"THE LOVES OF SOME LITERARY WOMEN."

PART III.

"Why did she love him? Curious fool! be still;
Is human love the growth of human will?"

BYRON.



For letters, Pope wrote:

"They live, they speak, they breathe what love inspires,
Warm from the soul, and faithful to its fires,"

And the words might be very truly applied to the letters left behind by many eminent literary women; letters from many of which may be gleaned much of the life and love-stories of their writers.

Down through a period of eight centuries has come the love-story—awful in its depth of human passion; touching in its tenderness and disasters; wonderful in its constancy—of Heloise and Abelard; and as long as the world goes on with all its sorrow and pain and joy; as long as there are poets and writers to give us histories of the past, I suppose the names of these two poor sinful mortals will be repeated over and over again. Gifted with wonderful physical strength and beauty; warm of heart; in the very maturity of his genius; already renowned for his powers of eloquence and the love-songs which he had composed and set to music himself, and which have come down to the present day; then in the prime of life, and one of the cleverest men living; yet untouched by vice of any kind, Abelard met Heloise the most beautiful woman perhaps of her time, who was gifted with great talents. The whole story is too well-known to be repeated, and it was from her cloistered retreat that the unhappy wife wrote those letters full of passion and yearning to the husband, for whose sake she had sacrificed so much, retiring from the world, and taking the veil—letters, which have come down through all ages, and which have helped to add to the fame of a man who had already been established, by the strange and uncommon circumstances of their life and love.

"I call on heaven to testify," she wrote in one of these world-renowned epistles, "that if the master of the world had thought me worthy of his hand, and had offered me, with his name, the dominion of the universe, the title of your slave, would have been to me preferable to that of Empress! What king could be compared to

you? What country, what town, what village, was not impatient to behold you? Where were the women who did not sigh to look on you? Where was the queen who envied not my happiness?" And so on, and on, and on, repeating the same story of love and despair over and over again, getting in return such cold replies, as Abelard deemed fit to come from a man of his calling; letters offering divine comfort, when the woman was hungering for human sympathy, though here and there the writer seems in spite of himself, to have penned a line showing that the man was stronger than the priest; only a few words now and then, which seem to have been drawn out of the man's very heart by the mere strength of the woman's love. How Heloise must have treasured those few occasional words—a very oasis in the desert of those cold epistles! Through the whole story the woman seems to have loved, and sinned, and suffered the most, and in the cold, pure, and passionless existence which she was supposed to lead, she herself confesses that she calls him:

"Mixed with God, his loved idea lies," crying out that:
 "All is not Heaven's while Abelard has part"
 "Her father, brother, husband, friend"
 Acknowledging her sin thus:
 "Thy image between my God and me,
 Thy voice doth seem in every hymn I hear,
 With every beat I drop too soft a tear.
 When from the censer, clouds of fragrance roll,
 And swelling organs lift the rising soul,
 One thought of thee puts all the pomp to flight,
 Priests, Tapers, Temples, swim before my sight!"*

Human nature was too strong after all. The world which never could leave them alone, during their life-time, was always interfering with them after their death, even separating them in their graves—for they had been buried together—and was always removing the remains from one burial place to another; but they were finally interred together in the cemetery of *Pere-la-chaise* in Paris, where their marble tombstone, on which the figures of the lovers are carved, is the most interesting object in the place to most visitors, especially perhaps to young lovers, who may well say as Heloise—when she uttered the wish that she and Abelard might share the same grave—

"Thought it possible they might:
 Oh, may we never love, as these have loved!"

Six hundred years afterwards in France was born another woman who became famous through her letters,—in fact the greatest French female letter writer that has ever been known,—the *Marquise de Sevigne*.

Malje, a daughter of the old Burgundian family of *Rabutin-Chantal*, was left an orphaned heiress when very young, and her mother's brother, Abbe de Coulanges, then quite a young man, was appointed her guardian. She spent a very quiet, happy girlhood, had no friends of masters, and grew up beautiful, and good. Menage, one of her tutors, is said to have tenderly loved his pupil who, young as she was, was something of a coquette. We hear of other lovers before she was well out of the schoolroom. Menage always remained the faithful friend of the little pupil with whom he fell in love over the daily lessons. In after life she went to him

* Pope's Translation.

with many of her troubles, seeking advice, and he is said to have remarked on one occasion "I have been your martyr. I am now your confessor." Another of her lovers was her cousin Bussy de Rabutin of whom she was always very fond but for whose character she does not seem to have had much respect, for he was a man of inordinate selfishness and ambition. There were many suitors for the hand of the beautiful young heiress, but she seems to have been quite satisfied when out of them all was chosen—as is the horrible fashion of the French—the Marquis de Sevigne, who was young and handsome, and rich, and the descendant of several noble families. Though hers was the proverbial "*marriage de convenance*," with Marie de Sevigne it was one of love. What more natural than that a young romantic and impressionable girl, brought up quietly in the country, and a seventeenth century French girl, should endow a handsome young fellow like the chosen husband, with all noble qualities, and think herself lucky to have such a man chosen for her? She loved him, and was very happy in the first part of their married life; but before long the young wife as much as she tried to blind herself to the fact, could not help seeing that her husband cared nothing for her. Little by little, the scales fell from her eyes, and all the noble qualities with which she had endowed the man she loved dwindled away from her imagination, which was the only place in which they had ever existed, and how low was the nature of the man she married she must have discovered, when he so far forgot his manhood as to tell her, that though others were fascinated by her many charms, they had no influence over him—he cared nothing for her. What must have been still more galling to the poor young wife was that he did not hide his feelings even in public. Yet, when the Marquis was killed in a duel, at the early age of twenty seven, his wife forgot the dissipated husband who had treated her so badly, and thought only of the man she loved, and mourned for him sincerely. One of the most beautiful and witty women of the brilliant world in which she moved, living in an atmosphere of much freedom and frivolity, beset with dangers which always surround a young and beautiful woman, whose husband, going his own way and finding his own pleasures, cares nothing for her, taking no interest in her doings, the Marquise de Sevigne, seems to have been "*sans peur et sans reproche*" lavishing all her love, and tenderness on her children, who were a great comfort to her in her troubles; her passionate love for her daughter being shown in nearly all her letters, which have taken a prominent place in literature.

While on the subject of women letter-writers, one could scarcely leave unmentioned the name of the greatest one to whom England can lay claim—the name of Lady Montagu. The first of those letters which afterwards became so famous and took their place among the best literature of England, were written to her mother-in-law, and were wonderfully clever and witty epistles for a girl of nineteen to have written. With all the effervescence of youth she gave her opinions on life in general, and showed a very decided contempt for those of her own sex, confessing she was glad she had been born a woman, *only* because then she could not marry one. Through her correspondence with the mother, she began to take an interest in the son whom she eventually married when she was about twenty-two. The marriage was not a very happy one, and after a

time the husband and wife separated, the former remaining in England, the latter travelling abroad ; and during the first ten years of their separations Lady Montagu used to write home to her husband regularly, cold but polite and formal letters. She was not a woman with much romance or sentiment in her disposition, and perhaps the warmest friendship she had was for Pope, who admired her greatly and who wrote to her saying :—

*" In beauty and wit
No mortal as yet
Your Empire has dared to withstand."*

" But the little poet seems to have gone a little too far in his lover-like attentions to please Lady Montagu, and her very evident displeasure turned Pope from a friend into an enemy, and it is Lady Montagu whom he meant to insult by that line in his " Moral Essays " in which he speaks of Sappho's diamonds agreeing ill with her dirty smock—Sappho being intended to represent his old friend.

A strange and romantic worship was that which Bettina Brentano, a girl of seventeen, had for that great genius of Germany, Goëthe, who was more than forty years older than herself. This girl, whose real name was Elizabeth, the sister of a poet and novelist, Clemens Bretano, and afterwards the wife of another writer of romances, Achim von Arnim, first fell in love, not with Goëthe himself, but with his writings ; she conceived a regular passion for the man through his works. When she was quite a child, she and Goëthe kept up a regular correspondence, and in after years Bettina published the letters which have become famous under the title of " Correspondence of a Child." The first meeting with Goëthe was a strange one. Her hero took the girl, who was a mere child to him with his burden of sixty years, upon his knee, and she having her head on his shoulder, fell fast asleep ! Speaking to Emerson of Bettina Bretano's romantic, girlish passion for Goëthe, Margaret Fuller said that Bettina " had not enough pride, and that only when she was sure of herself, would she pour out her whole soul at the feet of another, and that in the assured soul it is kingly prodigality ; in one which cannot forbear it is babyhood."

GRETCHEN.

BARRACK LIFE IN INDIA.

FROM A SOLDIER'S POINT OF VIEW.



TOMMY ATKINS! him we have always with us! Every fine evening, in spotless white attire, with head erect and shoulders square to the front, may countless specimens of his species be seen, stalking through bazaar or cantonment, monopolising the footpath, and cursing the heat. Take away the suit of white or red, the polished buttons, the military swagger, the strong language, and what remains of the popular notion of the British fighting man? Nothing, absolutely nothing!

And yet, in spite of mechanical drills, uniforms and general wet nursing, individuality is as strongly marked in the soldier as in any other type of humanity, and if the would-be esoteric will accompany us to the nearest barracks and observe Tommy Atkins amongst his Lares and Penates, he will be compelled to acknowledge that Tommy is something more than a labelled sample of the 'miles vulgaris' or garden warrior, guaranteed to shoot, fight, or drill, when the string is pulled.

The intense summer heat, and the severity of the annual monsoon compel the English soldier to pass a very large portion of his Indian life in barracks. This enforced seclusion, is not, as perhaps many imagine, frittered away in idleness and sleep.

Time.—nine A.M. Place.—Barracks of 'the 111th Good Old Bluffs,' Q. Company, Choleracutta.

The early morning parade on the maidan is over, breakfast has been discussed by voracious Tommies in shirt sleeves, on the verandah.

In anticipation of the daily matutinal visit of the Company Officer, each soldier has tied up his berth, arranged the clothes on the shelf above his bed, and arranged a glistening row of ammunition boots underneath the foot of the cot.

The Captain has come and gone! For the rest of the day our gay and *debonnair* military are at liberty to seek what amusement and instruction they can obtain within the precincts of barracks.

Observe yon subtle-brained, lissom-fingered private, seated on his bed, working away with shimmering strands of silk at a partially completed dragon caracoling on a silken cord of carnation hue.

This meretricious animal, the regimental clock, is destined for the forthcoming Soldiers' Industrial Exhibition, held annually at Lucknow, and will no doubt bring grist to the mill of the designer to the tune of at least ten rupees, and may even be purchased outright for sixty.

Another Tommy is engaged in the peaceful pursuit of sock-making: good, substantial, double-knitted socks, veritable boxing gloves, but very comfortable in the cold season. He has artfully evaded the expenses of wool purchasing by making the uppers of the material taken from mutilated Government hose—as Burnand might say ‘an upper thought!’

Seated at a little table, composed of an inverted ‘Meerut Soap Company’s’ box, the regimental *littérateur* is in the throes of poetic excogitation.

This is the gentleman who under the signature of ‘Wang Ho’ or ‘Chy Ikey,’ addresses those subacidulated letters to the Editor of ‘The Bluffer’ the monthly paper of the regiment, anent the woes of downtrodden Tommy and his rations, suggesting that all Portuguese and other niggers, should be compelled by law to kowtow before the red-coated guardians of our ge-lor-ious British Standard. The sledge-hammer eloquence of this warrior’s prose is only equalled by the polished sublimity of his verse. Glancing over his shoulder, we observe that he is at present pouring out his soul, in an impassioned Ode to Waterloo.

Oh Waterloo, oh Waterloo,
Where thousands they were killed and slew,
Pints, yea, quarts of blood did flow,
On that field of Waterloo.

Let us forbear to continue our rather sneakish scrutiny, lest the indignant poet, discovering us in the act of Paul Prying, demand what the deuce we are *dekkoin*g at.

On the verandah is the handy man, renovating damaged cricket bats belonging to the Company Game Club. He is a Jack of all trades, and is capable of turning his hand successfully to anything.

And so we meander along the lengthy bungalow, observing *en passant* the photographs and pictures adorning the walls of soldiers’ sleeping quarters. The comely, lineaments of mother, sister and sweetheart, glancing from white-washed walls, testify to the strength of those domestic ties which bind the heart of rough but sterling Tommy to the old country.

Through the half-opened door of the Color Sergeant’s bunk near the staircase issue groans, sobs, and gnashings of teeth.

The end of the month is at hand, the new horizontal system of Company Accounts has just come into vogue, and is sufficient with its intricate complications to addle the brains of a Senior Wrangler. The bewildered Color Sergeant is employed in making cross totals of rupees, groceries, accoutrements, drummer-boys and escalating ladders, the answer to come out in bayonet scabbards; truly sufficient to gravitate the most cool-headed towards Colaba or Bhawanipore.

Let us away to your bungalow alive with the ring of hammer and noise of saws in the regimental workshop. Here is the Printing Press, where the day orders are published daily, and where the monthly paper ‘The Bluffer’ is printed in first-class style. The Carpenter’s shop next claims our attention where a couple of soldiers are whistling lustily over a half-made coffin, driving in the nails with exasperating callousness. A very lightly constructed arrangement is the military coffin; half a dozen of which wooden suits lie in a corner, for the benefit of prospective enteric-fever victims.

A thoroughly flourishing institution is the Regimental Mineral Water Factory, turning out countless dozens of lemonades, sodas, sarsaparillas, iron tonics, etc., fully equal in quality to anything that can be procured in town.

Nor must we omit to mention the coffee bar, where articles of grocery are supplied to the soldier at very moderate rates. Twelve o'clock has just struck, and thirsty Tommies streaming from bungalow, library, and workshop repair for a midday wet. The Bluffs, a phenomenally steady regiment, nevertheless own a few beer-drinking champions, ever ready to quaff at their own or anyone else's expense. Lushington of the perennial cherry-nose is at his old tricks again—canvassing for seven pice to make up that quart! Dropping an eleemosynary two-anna bit into his trembling hand, we leave him to it.

At a quarter to one, the cookhouse-door call is sounded by the bugler, and basket-laden *bawarchis* issue from the cookhouse to their respective companies. The sable cook is a fiend of the deepest dye; his stews, roasts, and boils are marvels of gastronomic nastiness, are more easily imagined than described. The simple fact that these same *bawarchis* live to an advanced age and die a natural death, is a first-class certificate of Tommy's patience and forbearance.

A favourite dish of the native cook is a boil with roast gravy thrown over it.

Much has been said anent the evils of barrack room conversation; the *dilettante* Honeymans of the pulpit love to fulminate in squeaking accents against the blasphemous and impure language of the soldier. Let me beseech you, my reverend friends, to clear your minds of cant. What do you know about Tommy? one would imagine from your Jeremiads that nothing but filth and foulness issue from the lips of a soldier. In a single regiment are many minds. There are men in the Bluffs for instance, qualified to talk on any subject under the sun, from guides' and markers' duties to Esoteric Buddhism, and to talk well, too!

The after-dinner nap is of course in barracks, as elsewhere, a recognized institution. The punkah fans artificial zephyrs over pro-cumbent Tommies and from two till four silence reigns supreme, broken only by the occasional murmur of a punkah coolie, aroused from surreptitious slumber by the receipt of an ammunition boot, that gentlest of persuaders, on the head.

By five-thirty, the sun has sufficiently cooled down to admit of football being played. The Bluffs are great at football, both Rugby and Association. Every Company in the Regiment owns an Association team, and keen are the contests which almost daily take place on the drill square.

The hospitable portals of the canteen are thrown wide at six and Lushington is not absent.

To counteract the evil influence of the coffee bar the Army Temperance Association possess a commodious game room and refreshment bar; there for the ridiculously small sum of three annas can be procured two large cups of tea, a pleasant appetizing stew, and bread, *ad libitum*.

Sounds of revelry proceeding from the game room remind us that a miscellaneous entertainment is in progress. The place is literally packed with soldiers. After a very decent recitation an

earnest-looking Tommy with a husky, but tolerable voice, carols to the tune of the Minstrel Boy, a ditty with a very patent moral.

The thirsty troops for a drink have gone,
In the liquor bar you'll find them,
Make haste, the time is speeding on,
We'll follow close behind them.
Liquor, malt, cries a tipsy bard,
Teetotallers may despise thee,
Their bitter taunts I'll ne'er regard,
While annas two still buys thee.

That gay bard fell, dead drunk, my word!
One quart had knocked him under,
We raised him up but he fell again,
And tore his pants asunder.
And said, with me, beer don't agree,
Avaunt, such maudlin knavery!
I'll drink no more, from chains be free,
Of alcoholic slavery.

Taking advantage of the storm of applause which greets the conclusion of this effort, we make tracks for the Regimental Library and Institute.

Who talks to Tommy of ignorance? Here are papers, books, journals, periodicals galore; the library is crowded with reading soldiers. The only danger is that Tommy may obtain a surfeit of literary luxuries. What ploughman or agricultural laborer reads Punch and enjoys it? The average private soldier is at least as well read as the counter-jumper or clerk; he is omniverous and puts down *Ally Sloper* one minute to take up the *Nineteenth Century*, the next.

The true British soldier historian has yet to come to the front, to do justice to the thinking and reading Tommy, while Private Mulvaney is getting drunk and "serving it out" in the canteen over the way.

The cool of the evening is taken advantage of by the soldier in India as the only opportunity of seeking exercise and relaxation out of barracks, and there is no necessity to follow him into town, for cannot we see him there every evening?

A common sense government allows to the present-day Tommy liberties hitherto undreamt of, a well-conducted man being provided with a permanent pass which permits him to remain out of barracks every night when not on duty till twelve midnight.

At a quarter past nine, the canteen is closed, the last old seasoned cask being reluctantly driven from the regimental realms of Bacchus. With the exception of those who are out of barracks on permanent pass, every soldier is in bed by ten o'clock.

And now, my civilian friends, you have some idea of the social life of an Indian Tommy, although this bald and ineffective sketch affords but a faint glimpse at the thousand and one items which go to make up the barrack life of a British regiment.

The wonder is when once the red coat has tasted of the joys of India and what at will through commodious libraries, handsome institutions, splendid refreshment rooms, that he can ever take unto himself wings and seek again the bleak shores of inhospitable Albion.

Domestic ties are, however, as we before observed, strongly implanted in Tommy's breast, and if the truth must be told, he would rather be seated on a Kentish five-barred gate discussing a Barmecide dinner of bread and fat pork, than reclining on luxurious

oriental divans at a Capuan supper of curries, ~~tabobs~~, mutton chops,
and suddenly-killed *murghi*.

Is any apology necessary, if like Silas Wegg, we unconsciously
drop into poetry; with the soldier's life in India for our subject?

How doth the gallant Tommy live, 'neath Oriental skies,
When quits he home to Eastern climes incontinently hies;
This query, oft by anxious ones, full curious to know
Is asked—In verse I'll strive some information to bestow.

The bugle sounds the break of opening day,
Reveille! 'tis the early hour of five!
Forbear, on downy cots, my braves, to stay,
Rise soldiers, one and all, quick! look alive!

To wash and dress, these duties to fulfil,
Brief time our rough and ready Tommy spends,
From six to seven, early morning drill,
A healthy appetite, for breakfast, lends.

Parade is o'er! the subaltern alert,
With Argus eye, each individual cot
Inspects. Beware of unblackened boots or dirt,
Such things the officer is sure to spot.

At eight, our breakfast on the scene appears,
A humble, unpretentious sort of meal!
When Tommy at his steak metallic tears,
With appetite, unlimited and real.

The weary hours of the morning long,
The soldier spends in multifarious ways,
He reads or knits, and oft—no doubt 'tis wrong!
In sleep, *pro tem.*, all misery allays.

Brief time for slumber, for the men on guard,
In spite of stifling, devastating heat,
On duty irksome, onerous and hard,
By day and night, they tread their weary beat.

At 'barah baja,' for a midday wet,
All those who love a glass, themselves betake
Unto the canteen, while some linger yet,
Who can't two annas, for a livener, rake.

At dinner, round the festive board once more,
Our hungry military, in shirt sleeves sit,
Upon the native cooks, heap curse galore,
Who, callous mortals, mind not threats a bit.

Full slow the hours of dullish noon they roll,
At eve in football eager teams contend.
While others swim, or fish, or quietly stroll.
Happy the man who boasts a lady friend!

And when the canteen portals, once again wide,
At six, invite an ever-thirsty throng;
Old seasoned casks, till nine fifteen abide,
Nor think three hours for a drink a long.

Thus passes Tommy's uneventful roiling day,
A calm existence.—Piping times on
May they continue, long may they abode,
And keep this land, in happiness and

OSWALD KENDAL.

Corporal,
1st Battalion, "THE BUFFS."
Fort William.

IN THE DAYS OF AKBAR.

(BY LASSIE).

CHAPTER I.

A PASSING GLANCE.



HE city of Delhi lies bathed in a brilliant flood of sunshine on a certain warm autumn day towards the close of September. The excessive heat of the day is over. All the shop-keepers in the great square which lies between the Emperor's palace and the city proper are awake, refreshed by their mid-day sleep. Men and women are busy passing to and fro—the latter covered with long, loose over-mantles, through which their bright, dark eyes peer curiously about.

A few young girls linger timidly near an old grey-bearded astrologer who, seated cross-legged on a faded square of carpetting and surrounded by books and mathematical instruments, is gravely telling their fortunes. Pedlars of every kind move about crying their wares, from shawls and jewellery down to *lotahs* and brass pots.

In the centre of the square a parade of some of the Emperor's troops is taking place. The men have their spirited horses well in hand, moving to the crash of *atabals* and the music of the trumpet. Presently a louder strain of answering music is heard outside the gates. The troops on parade hastily fall into rank on one side of the square, and two richly-dressed Mogul officers on prancing steeds ride into the centre, with flags in their hands. These are Akbar's outriders. Then comes a group of foot soldiers led by a fair European who, in his western garments, looks strangely out of place amongst the richly-clad orientals. Following these come the *umaras*, or grandees of Akbar's court, each vying one with the other in the richness of their attire and the luxuriance of their beards, so dear to every Mahommedan. In the midst of them rides Akbar, easily distinguishable by the light golden fillet crossing his bright green turban; also by his rich green garments and his two footmen riding alongside, each one armed with a long white horse-hair *chuprie* to whisk away the flies. Behind the Emperor runs a man holding aloft a huge crimson umbrella. Each individual salutes as the Emperor rides past, and graciously smiling, the great ruler returns their greetings.

As the parade passes through the square, the Rajput chiefs who keep guard at the gates turn out and salute, and then tell each other that Akbar is just returning from prayers at his father, Humayun's, tomb outside the city gates.

Passing through the magnificent gateway of the palace, guarded by two huge elephants of stone each with a colossal statue of a

Rajput warrior on its back, and also by living Mahomedan grandees, the procession enters a space devoted to shops and offices, with the marble arches of the Durbar Hall facing them. Amongst the offices is the one occupied by Akbar's European captain of the guard, and riding slowly along, the Emperor glances up at the balcony overhanging the road. Hiding behind the curtains, yet curiously peeping out, is the captain's pretty daughter. She is a fair, rosy-cheeked damsel, with bright, blue eyes, and rich, reddish hair. Close behind her stands a group of dark-skinned slave girls, who throw into relief her fair beauty more conspicuously by contrast. Only for an instant does Akbar see her, for, finding she has pushed herself forward too prominently in her curiosity, the girl draws hastily back. Akbar rides on, but that moment's glance has fired his passionate Eastern blood.

Dismounting at the Durbar Hall steps and hastily crossing its marble floor, Akbar passes through the guard of Kalmuk females, and enters the zenana. He seeks the apartments of his favorite Rajput queen, Dewal, to see if she cannot charm away the strange effect the sight of the fair European girl has had upon him.

He finds Dewal languidly reclining on a pile of rugs and cushions, a slave girl crouching on the ground fanning her, and Prince Selim, a fair, high-featured boy of six or seven playing about. At the end of the room sits Dewal's nurse, a witch, like all old Rajput women, who is busy preparing *pau-saparie*.

Dewal is a very beautiful woman of about twenty-seven. Clad in a bright, soft, silken robe of pure yellow, with heavy bangles round her slender ancles and wrists, and with the sweet scented *bala* flowers twined in her rich, black tresses. She opens her splendid dark eyes languidly at a smothered exclamation from the slave girl, and starts up. "Ah! my lord! returned at last! The time has seemed long to poor Dewal." Akbar smiles and sinks down on the rugs, meditatively stroking his glossy beard. "My lord is weary! His soul regrets his noble father. Quick, Luchmin, the sherbet. Selim come and rejoice the soul of thy father." She hovers around him, glancing timidly at his pre-occupied face. He hardly notices even Selim when he comes forward and kneels before him.

When the slave girl returns with the fragrant sherbet, Dewal pushes her petulantly aside, and kneeling, presents it herself with a loving smile, glancing up into Akbar's handsome face. He seems touched as he looks into her beautiful eyes, and sees the sensitive face quivering with love and tenderness.

"Dewal," he says, laying his hand on her slender shoulder, "Thou dost love me?" "Alas!" Dewal exclaims, clasping her pretty hands in dismay. "Why does my lord doubt it? Whom am I to love but the noble, merciful conqueror and a friend of the Rajputs. Lord of my heart—father of Selim thy first-born—whom am I to love but thee?" She ends with tears streaming from her beautiful face. "Nay, nay, Dewal! Weep not," he says, "I did not doubt thee. I but asked the question. Dewal's heart is stirred within me." He looks away from her wistfully rather uneasily. All these years she has been his favourite wife. Ever since the day—nine years ago—when he took her from the zenana of her father, the brave old Rajput prince of Sumbhul, she has loved him with passionate fervour. Never once have her sym-

pathies and tenderness failed him. With a large faith and clear-headedness seldom found amongst Indian women, she has encouraged and supported him in his great reforms, in spite of the murmurs of the *umaras* of the Court. But now the sight of a winsome fair face has taken his fancy. He is a true Oriental, with quick, passionate feelings, and a complete despot—accustomed to have his every wish gratified—and now his whole soul is set on getting the European girl for his wife. So he looks away from poor Dewal's tender, wistful face, and strokes his beard.

"What is it, my lord?" whispers Dewal, after waiting to see if he will speak again. "What has distressed thee? Have any of the queens grieved thee? Or is it possible," she asks with flashing eyes, "is it possible any of thy subjects have rebelled?"

"No, no, my Dewal, neither of these things has happened. But it is that my soul craveth a forbidden pleasure," Akbar replies kindly and sadly.

"Alas, my lord!" exclaims Dewal, "Is it that thy soul craveth strong drink? Then wherefore should my lord not have it? Drink thy fill, and sleep in Dewal's chambers till thou recover the effects."

Even in his distressed state Akbar cannot forbear laughing at the woman's simplicity.

"Dewal!" he says, with laughing reproach, "wouldst thou have me break the rules of the *Koran*?" "Fye! fye! No," he adds gravely. "The wish for drink is far from me. But I must go to Durbar, now, my Dewal," and he rises and leaves her.

CHAPTER II.

THE DECISION.

It is a bright, warm, moonlight night. The splendid gardens situated behind the palace lie bathed in the silvery beams. A gentle breeze is faintly rustling the perfumed myrtles and champa trees, and casting their fragrance far and wide. The waters of the marble fountain fall softly into their ornamental basin. From the darker parts of the garden come the sweet notes of the little *bulbul*, the Indian nightingale.

Pacing up and down the garden walks in earnest low-voiced conversation are the Emperor and a tall, handsome man, whose long, henna-dyed beard and peculiarly fashioned garments proclaim that he has paid a pilgrim's visit to Mecca. This is Akbar's prime minister, the gifted, unscrupulous Abul Fazil, whose influence over his royal master is almost unbounded. Akbar is telling him that his heart has gone to a beautiful Seringhee girl, and Abul Fazil is trying to reason him out of his determination. But here Abul finds his influence and arguments of no avail.

"It is of no use, Abul Fazil," Akbar says. "Tomorrow, you summon the captive to my guard into my presence. I am determined to marry the girl."

Abul Fazil twists his beard in silence. "But, your majesty, she is a Christian," he ventures to object, after a pause. "What of that?" questions Akbar promptly. "Are all my wives Mahomedans that you say that? Have I not Rajput wives, and are not Rajputs Hindus, Abul Fazil?" he asks, with a sharp glance into the discomfited face

near him. "True," murmurs Abul Fazl, "but Rajput women yield. Christian women will want their priests."

"She will have what she wills," Akbar replies. "Perchance the Christian religion is better than ours. We will have a chance of testing it."

Abul Fazl is silent, not because he is surprised at Akbar's word—both he and his royal master are freethinkers,—but because he can think of no more objections for some time.

They pace backwards and forwards silently. From outside the gate comes the smell of *ghulls*, the faint rattle of the *hookahs* being smoked by the soldiers on guard; and from further off comes the monotonous beat of a tom-tom, played in some village close at hand.

Then a light twinkles through the *jalousies* of the harem which overlook the garden, a jingling of castanets is heard, and a woman's soft, rich voice breaks into song, singing of the love and trials of Rama and Sita. It is Dewal, who anxiously waiting for Akbar, is trying to pass the time by singing; no doubt putting Akbar and herself in the places of Rama and Sita, and pouring out her whole soul in song.

Akbar starts as the accents fall on his ear, and casts a hurried glance upwards. "And, your majesty," half whispers Abul Fazl, keenly watching Akbar's face. "What of Dewal Maharani, if you wed this fair-faced Feringhee?"

Akbar groans a moment, and hangs his head. Then he raises it and answers proudly: "The heart of a true Mogul is large, it can love many wives." "Undoubtedly, your majesty," agrees the minister, "but the Maharani? Will it add to her happiness for you to wed another wife? Already you have more than the Koran allows." Akbar turns to his minister. "I allow no one to question my acts, Abul Fazl," he says sternly. "Besides," he adds more kindly, as the minister bows his head, "my marriages are those of policy. Dewal I loved only; and now this one. My happiness is Dewal's. She will be glad and rejoice in what gladdens me. She will love the Christian girl as a sister; as the beloved of Akbar."

"I trust so, your majesty," Abul Fazl says drily.

"This girl is beautiful as a *houri*, lovely—," Akbar says rapturously. "Now, forget not, Abul Fazl, summon the captain of the guard to me to-morrow. And now good-night, Allah bless thee. Salaam Alikum!"

"Alikum salaam," responds Abul Fazl, salaaming profoundly, and standing to watch the Emperor enter the palace. Then he strolls away. "Blind fool! Idiot!" he murmurs. "Does he really fancy Dewal Maharani will love and cherish this girl? I never saw him so bent before. He will have the girl at whatever cost. I fear me beautiful Dewal's day is over. But it's 'what is done is done' and no man can resist that. The moon wanes. I must hide my head," and meditatively stroking his long beard, the prime minister follows the example of his royal master. Silence reigns over the whole city, broken only by the heavy tramp of the soldiers, the challenge of the sentries, and the hoarse murmur of the Jumna, as it rolls by, swollen by the heavy rains hardly yet over.

(To be continued.)

THE HUASCAR.

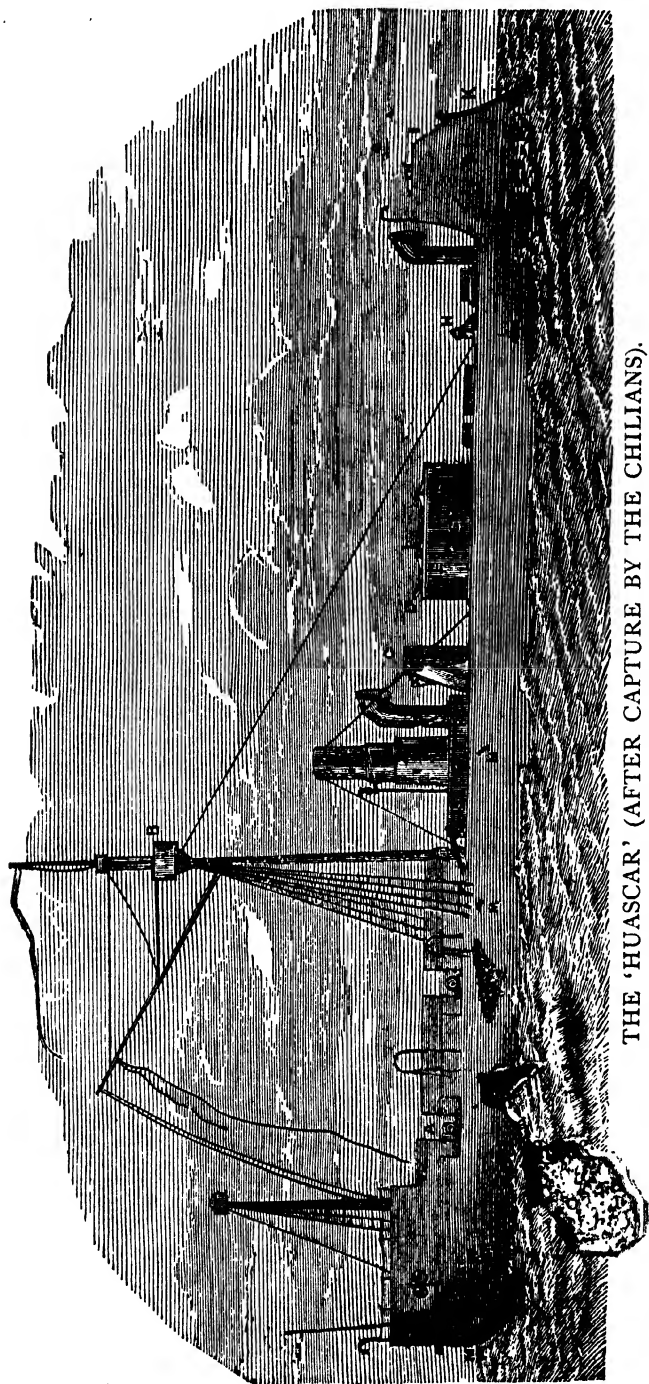


TOWARDS the end of last month telegraphic information was received of the destruction, by a torpedo, of the Chilian insurgent ironclad *Huascar*. We publish to-day an illustration of this famous vessel as she appeared after capture by the Chilian squadron from the Peruvians in 1879. The *British Navy*, vol. II, gives a graphic description of two naval engagements in which the *Huascar* took part which are worthy of special notice. Not only were these engagements fought by armour clads of modern if not of the most recent type of the day, but the guns with which the armour-plating was attacked were rifled pieces, firing Palliser projectiles, and of the British pattern.

At the time of the first engagement the *Huascar* belonged to Peru, and the fight was between the British ships of war *Shah* and *Amethyst* on the one hand and the *Huascar* on the other.

The *Shah* was an iron-hulled, unarmoured frigate, cased with wood, with a displacement of 6,040 tons, an indicated horse-power of 7,350, and a mean speed at her trial trip in 1876 of 16·4 knots an hour. Her armament was composed of two 9-inch 12 ton guns, sixteen 7-inch 6½ ton guns, and eight 64 pounders, all rifled muzzle loaders, the last-named not firing battering projectiles. The *Amethyst* was an unarmoured corvette of the modern type, with a displacement of 1,934 tons, of 2,144 indicated horse-power, and carrying fourteen 64 pounder guns. The complement of the *Shah* was 602, of the *Amethyst* 226 officers and men.

The *Huascar* was an iron-hulled, armour-clad turret vessel of 2,100 tons displacement and 1,500 indicated horse-power. At the time of the action she is said to have had new boilers, and to have been able to steam eleven knots daily. Her plating on the hull is four inches thick, tapering to 2½ inches at the bow and stern. The turret plating is 5½ inch in thickness. She carried two 10-inch 12 ton rifled muzzle-loading 64 pounders on Sir William Armstrong's system, in a single turret, and two 40-pounder rifled muzzle loaders on the quarter deck. On the 1st of May 1879 British ships having sighted the armour-clad gave chase, and were prepared for action. The *Huascar* tried to escape towards the land, but the *Amethyst* being in shore assisted to confuse her movements. She then stopped, and an officer was sent on board of her by the British Admiral with a demand to haul down her colors, which was not complied with. The action began at 3·6 P.M. The *Shah's* firing was telling and well sustained; but the *Huascar* being only three feet out of water and frequently end on, was a most



THE 'HUASCAR' (AFTER CAPTURE BY THE CHILIANS).

A Quarter-deck gun. B. Screen round Gatling gun. C. Conning-tower. D, E. Injured roof of turret. F, G. Shots striking turret. H. Capstan. K. Stem. L. Shot through from port side. M. Shots striking starboard side.

difficult object to hit. The *Shah's* guns were also frequently silenced by the Admiral's order, when, owing to the *Huascar* placing herself close under the town of Yeo there was a risk of injuring the town. The *Amethyst's* fire was conducted with great precision; but the armament of 64-pounders was useless, except to distract attention and draw the *Huascar's* fire occasionally off the *Shah*.

The *Huascar* replied with shell from her turret guns, and continued manœuvring backwards and forwards in front of Yeo, her draught of water being 14 feet and that of the *Shah* 27 feet. The navigation was rendered highly dangerous owing to the rocks and shoals at the entrance of the bay. The *Shah's* distance from the enemy was, consequently, from 1,500 to 2,500 yards. The engagement was partly a following and partly a revolving one, with occasional attempts on the part of the *Huascar* to run, which had to be carefully guarded against with a ship so long in proportion to her beam, and therefore so slow in turning as the *Shah*. Owing to the size and weight of the latter ship, and the confined space to manœuvre in, she was unable to benefit by steaming up to an effective range of 1,000 to 1,200 yards, and stopping to deliver a steady fire; the greater rapidity of the Peruvian's movements rendering such a proceeding dangerous, and the risk of being rammed before being able to gather way again being too great. The *Huascar* appeared to steam about eleven knots, and always contrived to keep her turret guns pointing at her opponents, except when in their loading position. About 5 P.M., the turret ship being clear of the shoals, advantage was taken of the opportunity to close. The *Shah's* Gatling gun was then fired from the fore-top. It was at this moment that the white-head torpedo was launched at the turret ship. The action ceased at 5.45 P.M. No damage was done to either of the British ships beyond the cutting of a few ropes.

The battle which resulted in the capture of the *Huascar* by a Chilean squadron, comprising two armourclads of recent design, conveys exact information as to the effect of fire upon an armoured ship. The *Huascar*, accompanied by the unarmoured corvette *Union*, under Captain Grau, of the Peruvian Navy, was returning to the northward from a cruise along the Chilean coast, when, about half-past three, on the morning of October 8, 1879, she was sighted by a division of the Chilean squadron under Admiral Rivero. The Chilean flag-ship was the armoured *Blanco Encalada*, and the two wooden unarmoured cruisers, the *Covadonga* and the *Matias Cousino* were in company. It may here be proper to mention that the *Blanco Encalada* and the *Almirante Cochrane*, which subsequently took a decisive part in the action, are sister ships. Their displacement is about 3,480 tons, they each carry 9-in. 12-ton muzzle-loading Armstrong guns, having 4 in. of armour on the sides, tapering to 4½ in. at the ends, and 6 in. in the central battery, in which their guns are mounted. Their highest speed should be about 13 knots.

We now return to the more important incidents in the engagement. The Peruvian ships tried to escape to the northward, but their retreat was cut off by the appearance ahead of them of the second Chilean division with the *Almirante Cochrane*. At 8.40 A.M. this ship was about 3,000 yards from the *Huascar*, which at 9.15 fired her first shot at the *Almirante Cochrane*. The latter did not reply, but continued to approach till her fire might be more effective; and a

few minutes later a well-sustained fire began from both ships. The *Blanco Encalada* meanwhile neared the Peruvian, and drew off a part of the fire, which had previously been concentrated on the *Cochrane*.

As the fight went on, the vessels drew close together, and a gallant attempt was made by the Peruvian to dispose of her assailants with the ram. At one time the *Huascar* passed the *Blanco* at a distance of only about 25 yards, firing her guns and keeping up a warm discharge from the machine guns in her top. The Peruvian was eventually placed between two fires by the Chilean armourclads and was obliged to submit. The *Covadonga* fired one shot at the close. The engagement lasted precisely one hour and a-half, the *Cochrane* being under fire the whole time, and the *Blanco* only during the last fifty minutes. The *Huascar* had a complement of 200 officers and men. Captain Grau and 38 officers and men were killed; and among the 162 prisoners, 30 were wounded. The losses in the Chilean squadron were confined to the *Cochrane*, which had 12 men wounded, one mortally. The other ships escaped without a single casualty. The *Huascar* had been greatly injured by the fire of her opponents. The subjoined drawing gives a general idea of her appearance after the battle, and of the state of the conning tower in which Captain Grau was killed.

The Peruvian vessel was struck upwards of 20 times, and received more than a dozen severe blows. Mr. H. D. Pender, in a letter to the *United Service Gazette*, describes the effect of each important hit. Numbering the shots consecutively, in the order in which they appeared to him on going round the ship, he gives the following information:—

"No. 1.—Starboard side.—Struck the upper edge of the plating abreast the fore part of the turret, forcing up the deck-covering plate.

No. 2.—Penetrated the armour 18 in. above the water-line, and over the engine-room, passing through the starboard waist cabins, over the engine-room platform, and bursting in the port cabins.

"No. 3.—Penetrated just above the water-line, almost abreast of the stern-post, and burst in the ward-room.

"No. 4.—Entered the after cabin, carrying away two beams and the sheave of the relieving tackle, and killing all the men steering.

"No. 5.—This was a fore-and-aft shot. It struck the stern under the upper deck, smashing the stern-post, carrying away bulkheads, and killing all the men at the tiller.

"No. 6.—Entered on the port side, opposite No. 4 shot, 2 ft. above water, bursting inside the pantry.

"No. 7.—Struck the edge of the upper deck abreast the after-part of the turret. The turret has a deep egg-shaped splash on it, probably from this shot.

"No. 8.—Penetrated between the turret and the fore-castle, 2 ft. 6 in. above the water, and burst in the carpenter's shop.

"No. 9.—This was an end-on shot fair on the water at the deck line. It deflected upwards, carrying away bitts, &c.

"Two shots struck the turret, viz.:

"No. 10, which, looking at the turret from outside, but a little to the left of the right-hand gun-port, level with the trunnions, penetrated the turret between two plates right on the joint, hit the

right trunnion of the right, and carried away the cap-square, compressor, &c. The gun was not injured, but its crew were all killed.

"No. 11 struck the turret near the top at right angles to the path of No. 10. It appeared to have exploded in the turret, as the webs of two of the transverse beams were cut away, leaving the flange, and the beams were not deep enough to admit of a whole shell passing through them. The upper part of the breech of the left gun was much scored; the carriage was intact. Some fragments of this shell passed out again at the upper edge of the turret killing the officer, second in command of the ship.

"Nos. 12, 13, and 14 struck and destroyed the hexagonal thinly armoured conning tower, and one killed Captain Grau.

"'On the main deck,' says Mr. Pender, the ward-room and stern cabin were quite destroyed; there was hardly a trace of the bulkheads; the contents of the state-rooms were strewn about the flooring, and the upper deck ceiling was one mass of powder and disintegrated human remains. The engines and boilers, and the turret-winches were untouched."

EDITOR'S EASY CHAIR.



ONE OF OUR CORRESPONDENTS WRITES, CONCERNING THE Bone Industry in Bengal :—Of late years there has been a great fillip given to this industry in the province of Bengal, owing to the increasing demand for bone-dust as one of the principal constituents of a number of the artificial manures now so much used in agriculture. For some years there has, of course, been a certain demand for cattle bones for making animal charcoal for refining sugar and other purposes, but it is only within the last two, or at the utmost three, years that the business of bone buying and crushing has been taken up by prominent European firms to any great extent for admixture with other fertilizers ; but it has now become a regular industry, to the great advantage of one of the lowest and most looked-down-on castes in India. These people, the "Chamars" or "Moochies," who are the only caste who will collect the bones and hides of animals that have died, are reaping a rich harvest from collecting and disposing of bones since the increased demand for them has set in,—in fact, the securing of hides is now quite a secondary consideration to them, whereas formerly it was their principal means of livelihood and a poor one at that, both on account of the few hides that a man and his family could secure before the vultures and jackals had spoilt them, and the trouble and expense of drying them and keeping them in a condition fit for the Calcutta market; then again, it is only men who can take the hide off a bullock or buffalo, or indeed any animal, but the women and young children can pick up bones, and on passing through a "Chamar" village a bone heap will be seen near almost every house, having been collected by the members of each family.

In all the villages inhabited by these people on the banks of or near a river, six or eight men club together and keep a boat, which they row, tow, or sail themselves, taking it to places up-country three weeks or a months' (or even more) journey, returning when they have a full cargo, and taking up what bones their wives and little ones have got together, when they once proceed to Calcutta, or some of the bone mills in the suburbs where their merchandise meets with a ready sale, at prices varying from fourteen annas to one rupee four annas per maund of 80 lbs. which, as they have probably given little for it in cash, gives them a handsome remuneration for their labor and time ; as the boats carry from eighty to three hundred maunds each, which allows them to spend some days at home on their return, to do any repairs their boats may need, and to have a high time with their "*tum-tums*" or other

instruments of music (or torture according to who is listening to them), as well as have a good feed and drink. For they are a jovial people amongst themselves, and are great at all social gatherings from a wedding to a wake. The "Chamar" is not, as a rule, much of a cultivator, beyond a small patch for a few vegetables and such like crops for his own consumption that the old man and his womankind can look after, though nearly all houses have their cows and goats, and most of them a sheep and pig or two, as well as ducks and fowls.

It is to be noticed, too, that Chamar villagers living any distance inland from any river have a much more poverty-stricken look than those that have the advantage of being near a river, which is easily to be accounted for, as they have not the chances of disposing of their hides and bones that their more fortunate caste brethren who have their own boats possess, and probably have to dispose of their commodities to the boat owners, at a very much cheaper rate than the latter can get for them.

There was at one time some idea amongst a few people who knew little or nothing about the matter, that collecting the bones from the plains of Bengal and sending them to England or even manufacturing them into manure in Calcutta or elsewhere, would impoverish the soil, which, on the face of it, is an absurdity; bleached bones lying about in the jungles uncrushed can be of no service; indeed, bone manure unless scientifically mixed with other fertilisers is of little use, and the Bengali ryot is yet a long way off understanding the advantage of going to any expense to make two blades grow where one grew before, though some educated natives are awaking to the fact that manure on impoverished soils must pay, or Europeans would not go to the expense and trouble of sending bones from Bengal to England and Scotland, in many cases to bring them back again to India as patent manures for tea and other crops, unless they derived considerable benefit from using them, and enquiries are often made as to what advantage is derived from them.

No doubt, as time goes on and a few experiments are made, the cultivators of Bengal will gradually awake to the fact that the utilisation of the substances at their disposal as manure will pay, and bone mills and manure factories will spring up near any large group of villages, and the cattle will give back to the land that fed them some, if not all, of the nourishment that they took from it.

The price of bones varies a good deal when buying in the mofussil, and indeed in town too, and at first sight it seems strange how one man can obtain his bones some annas per maund cheaper than another; but the matter is very easily explained. The "Chamars" are sharp enough to find out where they get the fairest weight, and make the difference in price to their different buyers accordingly,—in fact the highest price is given with a kind of tacit understanding that very full value will be taken.

It will be seen from this article deals with collecting bones in the mofussil, but the benefit to the same class of people living in, or in the vicinity of, large towns accruing from this industry, is as great as is that accruing to their country caste brethren.

THE FUTURE OF WOMAN.

In a recent issue of *The Forum* is published a most interesting article upon "The Future of our Daughters." The writer is Helen

Starrett, and she considers the position of women from the social and the business standpoint with much clearness, and interprets social progress and the problem of employment for women with understanding and comprehension. In regard to work for women she says:—"The singular and interesting fact about the whole question of the future of our daughters becomes apparent that from diametrically opposite conditions of life comes a similar pressure toward a common result. That result is the entering or the desire to enter upon earnest activities of life, with the definite object of achievement of some kind. For the one who is pressed by necessity the object to be achieved is money wherewith to satisfy the imperious demand of the physical nature for food and shelter and raiment; for the one who is not thus pressed, it is to satisfy the equally imperious cravings of the heart and mind for a food just as necessary to mental and spiritual life and happiness. They must be educated to be independent, self-sustaining workers, as a condition not only of their safety in this world of vicissitudes, but of their happiness as rational beings. The necessity is not more imperious for those who must earn their own living than it is for those who spend weary hours in homes of comfort and wealth, and who sit with hungry hearts longing for some worthy aim to come into their hearts and fill them. "Wisdom is a defence, and money is a defence," said Solomon, and in their possession of wisdom and of money, or of the opportunity to learn the one and earn the other, they are to be equipped to meet life. They are to know the powers and uses of that most subtle instrument of civilization, money, and to command the respect that is accorded to the woman who carries a cheque-book. But while we argue thus for the future of our daughters who must be, or choose to be, bread-winners, we do not forget the great domains of usefulness and of power lying above the plane of bread-winning that are open to educated women."

The article is full of valuable suggestions, but brings to mind the question, if all modern life is not too much based upon the acquiring of money, of place and consideration. Girls are educated more practically, doubtless with more wisdom than formerly. But is it necessary to emphasize the respect accorded to the possession of a cheque-book? It is a time in the world's history when we are too apt to give respect to place rather than to individuality or to character. Social life degenerates into a striving after a consideration. The possession of beauty, grace and the womanly sweetness and dignity that were once the *criteria* of assured respect, are now set aside, and the question of money, achievement and business ability has taken their place. It is to be regretted that the ideal is so set aside by the practical. Is it not possible that the advanced system of practical education may teach women to take care of themselves too well? That is, to reach for place, power, comfort and consideration at the expense of all the finer things of life. "Keep your ideals," should be the most important advice that could be given. Be practical if you must, but not to the extent of selfishness or of self-seeking. If you are conscious of your own weakness, believe that other women possess all that you lack.

TABLE TALK.

A friend of ours sends us the following:—

Mr. Payne in one of his pleasant, chatty notes refers with a curious

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mixture of pride and modesty to an early belief of his that the art of story-telling might be taught like any other art or science. Evidently the idea was given to the world before its time, for the critic lent it to shreds in no time, and the chance of improving our light literature was deferred for a period till Mr. Besant took up the parable the other day. If Mr. Payn was premature, Mr. Besant is not a moment too early. There is no woman, I believe, who, left with an ink bottle and a ream of foolscap does not consider herself, without any training, fully qualified to instruct or amuse a high-toned public through the regulation three volumes, and the result is the annual outturn of an awful quantity of what our American cousins term "slush." Whether the art of story-telling may or may not be taught, I shall not venture to decide; much as I should like to see the attempt made in the case of a few industrious people who send me periodically tales for publication. But I do think a middle school education in the writers might improve the standard of some of the stories that appear in the columns of Indian papers. Ever since the imaginative Rudyard led the way, it has become the fashion with a certain class of imitative novelists to make Simla the scene, and illicit love the subject, of their narrations. I am far from being one of the most strait-laced of men and I can on occasion use naughty cuss words, and even enjoy naughty stories, if they have motive and point in them. But this is exactly what the Kipling imitations lack and they all display desperate ignorance.

There is an appalling amount of wickedness in them, but the sin is juvenily aimless. The writers all labor under a burning sense of obligation to say something that would shock well-bred men and women, much as boys smoke to show their manhood; and the outcome is sickening in both cases. Perhaps matters might be improved if the scribblers made themselves acquainted with facts that even the ordinary school boy knows. One of the latest examples of the prevalent form of literature is a tale that appeared in *The Weeks' News* under the title "A Simla Idyll." "The story turns on the unholy passion of a young girl for a married cousin," a "dashing Major" by the way, I should like to know why the genus major is always "dashing," and captains unalterably "gallant." Anyhow the dashing one has a younger brother who is Commissioner of a District and a mother who finds herself as having unreasonably warbled before marriage the song of love and death to the man who afterwards became her husband. So far as the story goes, the writer—young, apparently, and female evidently—only follows precedents; its absurdity hinges on what is intended to be the pathetic climax—Elaine's song. Considering that Tennyson's *Idylls of the King* were published in 1858, and that the events narrated could not have occurred after 1889, if due allowance be made for the period between the prenuptial song-singing, marriage, and the birth of the dashing one, the age of the hero is reduced far from fabulous proportions. And that of course implies that his father or brother was a "Commissioner and Magistrate of Police" before Mr. Leard was grown. "Dates" I understand form an important item in a school girl's education, but the writer of the "Simla Idyll" labors under the impression that Elaine's song was written in the early years of this century!

A VISIT TO THE LOCAL LUNATIC ASYLUM.

A LADY FRIEND OF OURS, WHO RECENTLY PAID A VISIT TO the above Institution, sends us the following :—

With the good results that have attended the attempts of Mrs. Alice Hayes to alleviate the sufferings of the inmates of our Leper Asylum in my mind I recently paid a visit to the Lunatic Asylum. I had two objects in view. One to see an unfortunate friend of mine, another to view the working of the place and ascertain whether even Mrs. Alice Hayes could have found a flaw ! A place like this is at all times a melancholy sight, still more so when you happen to see what once was a bright man or woman ; and many such are within the walls of this Asylum, so close to us in our evening or morning drives and walks. Young women once living in a happy circle, now mere machines ! brought to this by whom ? It is awful to say it, but too often, I am afraid, by the thoughtlessness or wickedness of the opposite sex. The affections and feelings tampered with, then the ruin is completed by the brain giving way, and then what do you behold ? A wreck in its most pitiable form. It was not to begin a sermon, though, that I visited this place. The reasons I have given. The results I will try and explain. I first of all saw my friend. There are *many* in this city who knew him in the old days and who feel sorry for him now. "A fellow of infinite jest and of most excellent fancy." These words might well have been said of him. Now an inmate of the Lunatic Asylum in Bhowanipore ! The Preacher of whom in our younger days we have all heard might well have said, "all is vanity." We have all been through pretty and well-kept grounds but never have I been through such scrupulously well-tended ones. The paths and avenues are marvels of care and cleanliness. Not a leaf to be seen on the ground, the foliage of the well-kept plants was quite restful to the eye. I was taken into a sort of Bower of Ferns and Orchids. The poor souls I believe sit in this place when it is raining. I saw the small cabins occupied by the inmates in which small but very clean beds, and other furniture, are provided. The arrangements for bathing are excellent. An attendant outside pulls a string and down comes a lovely shower bath. The inmates appear to have perfect freedom. They are well-fed and well-looked after. The surroundings are all good and pleasant, and the sadness only rests with the human pictures ! The Calcutta hospitals might take, with advantage, a leaf out of this building. The floors throughout are of tessellated tiles, and so clean was every floor of every room and passage, that it spoke volumes for the supervision of the officer in charge and of the patron under him.

The private wards were exactly like very tidy bed-rooms. There is the large dining hall for private patients. It is all made to look pleasant. A piano even is introduced, to which many a poor creature, I believe, sits down vainly trying to recall some forgotten chords !

It is not often that a public institution is so well looked after and in this case it might be much neglected for the unfortunate ones inside its walls could make no complaints, and would know no better, and perchance it would only be a casual visitor like myself that would bring to light the dust and cob-webs !

I don't suppose it is generally known that this Asylum provides families with good milk and butter, the cows being kept on the premises. The death-rate is very small.

MR. WM. DIGBY.

MR. WM. DIGBY, C.I.E., HAS IN SUPPORT OF HIS "OPEN LETTER to the House of Commons," January, 1891, "on the distressful condition of India," written a rather long-winded attack upon "certain comments," and expressions of opinion of an adverse nature "respecting the main contentions of my letter" which were made by the Editor of *Greater Britain*. Mr. Digby is, apparently, not much of an authority on Indian Affairs; but the air of assurance that pervades the entire article,—an unqualified condemnation "of Our Present System of Administration,"—might well lead English readers to suppose he was. Ninety-nine per cent. of his readers probably know as much about India as they do of the physical features of the moon, but to try to impress such gross misrepresentations, though aided by figures (which, however, can be so twisted and turned as to make them suit just the purposes one desires) upon those who possess even a spark of knowledge of this country, will have very little effect.

Mr. Digby's chief 'proposition,' as he calls it, is as follows:—

"We have brought about in India a deep and deepening poverty all over the land such as the world has never before seen on so vast a scale," and Mr. Digby in proof of this highly sensational and sentimental misrepresentation makes an extract from a journal—"Mirzapur to Nagpur—in 1879," wherein is described in glowing terms the splendour of the province. But all provinces under British rule are more or less deserving of grand descriptions. The people of India, again, are far from being poor. Real poverty, starvation, and nakedness are evils not known in India; even the beggars whom one meets in the streets, and who make daily visits to our houses, enjoy a luxury and ease which is decidedly not the case in any other part of the world. Take for example (to use Mr. Digby's expression) our daily household servants. A more independent body of men, vast though their numbers, and keen though the competition among them, nowhere else exists. They think nothing of throwing up their appointments without a moment's hesitation or notice, for a mere trifle, and oftentimes for literally nothing, or as the saying goes, just as the "spirit moveth them," and yet there is a strict law to protect them from ill-treatment and secure them against any illegal attempts to deprive them of the means of obtaining good clothing and shelter.

"We have beggared India by the discouragement of industrial pursuits." Have we, indeed? Mr. Digby thinks so, but the people of India are evidently not of the same opinion. The principle upon which natives judge their progress is "quantity not quality." Such being the case we must come to one, and only one conclusion; that local industries have been ousted by foreign imports offering better value. It is proverbially true that the natives of India lack the spirit of enterprise. No task is more difficult than that of raising Indian capital. Is it then a matter for wonder that profits annually realised from the various industrial resources of the country, are carried away to England for the benefit of a people, who in their love for enterprise are never afraid to risk their money rather than secure it in Government paper, debentures, deposits in the Banks, and by the purchase of gold ornaments and stones that lie in the house, like lumber and dirt for any practical use or benefit to themselves direct or indirect.

As for keeping the people out of posts of influence and power, that is an egregious error into which we trust Mr. Digby has not wilfully fallen. Natives, now-a-days, occupy high Government appointments in almost every department of the Government. To expect more would be unreasonable, and not in accordance with the laws of safety. What power will England have over India if it rids itself entirely of its legitimate duties in favor of the natives—if it places the administration of the country independently in their hands; will it not by so doing render itself open to the charge of imbecility? Has Mr. Digby been so narrow-minded as not to have seen this! Take for instance our commercial men. They would not for a moment dream of placing their business exclusively under native management and under native control. If they are alive to the necessity of European assistance for the welfare and safe conduct of their business, how much more essential is it for the Government to so settle the administration of its dependency as to render itself secure.

It is true that there is a larger percentage of educated natives now in the country, most of whom, with a few rare exceptions, are holders of University Degrees. But it is equally true, at the same time, that 99 out of 100 of such passed students are not fit to hold Middle School Examination Certificates, and are a disgrace to the few educated men of their community. It therefore does not seem possible that the Government will be at all likely to entertain men in the highest offices whom it nevertheless recognizes as fit to hold high University titles of honor and distinction, and in consequence of this recognition of their incapability, these University degree-holders are put into posts of the clerical order which they fill fairly well.

But Mr. Digby nowhere seems to have lost his equilibrium more than in the paragraphs in which he attaches blame to the Government for the recent increase of famines as compared with past years. Government is supposed to fight against natural causes in order to effectually stop famines. It is not called upon to abate the distress of the people visited by a famine. It is not considered whether Government does so or not, but it is clearly required to suppress the disaster. Could any one conceive any thing more absurd? If in the 18th century eight famines came under notice as compared with the one in the fourteenth, the matter is very easily explained. Our Railways are bringing us year by year into closer contact with people and places which it was impossible to approach in past centuries. It is therefore certain that when famines did occur, before the existence of Railways, etc., none but the wretched sufferers, who were absolutely without the means of assistance, knew about them, and how many hundreds and thousands of people who are now receiving relief, owing to the means that exist of approaching them, would perish if the country were still destitute of the means of access? And no one would be any the wiser.

THE EDITOR'S DRAWER

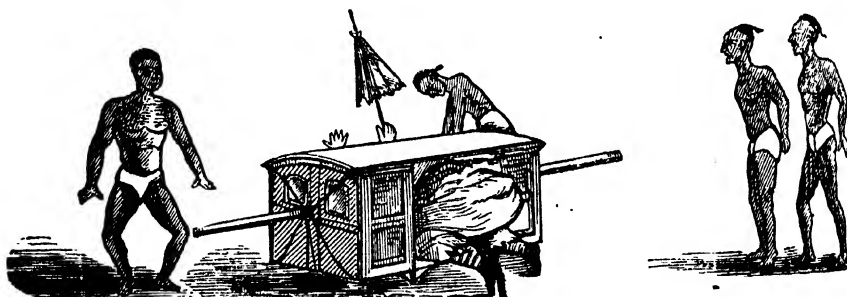
STEFNIAK, the famous Russian Nihilist and novelist, is one of the most interesting personalities in London, where he now resides, and has done much by his writings to show us the seamy side of life in Russia. In his career as a Nihilist he has had many hair-breadth escapes, and when you look at his pale, impassive, Slavonic face, you can see that the risk of death has had no terrors for him. On a recent occasion he was asked his opinion of the present Czar, and replied: "I believe Alexander III. to be an honest and good man, but——" and he paused significantly. A few years ago, as many will remember, the banquet hall of one of the Imperial palaces was blown up by dynamite. The ornamental work in the ceiling required some slight repairs. The workman who came to do these brought with him a small infernal machine which was timed to explode shortly after the commencement of a large family dinner-party to be held there that evening. This he intended to place in a small niche which he made for the purpose in the ceiling. He was standing upon the ladder with the bomb in his hand, when he walked the Czar himself. He began to talk, and asked the mechanic about his life, whether he was married, if he had children, and conversed with him kindly for some time. It was a terrible situation for the Nihilist, who was quite charmed

by the manner of the terrible White Czar, whom he had come to assassinate. His impulse was to confess all, but his oath of allegiance to his cause deterred him, and when the Czar departed, having given him some money, he adjusted the bomb and left the palace. That night was one of great anxiety to all the Nihilists in the plot, and when the explosion was heard at the right time it was thought that all the guests had perished. But it happened that the Duke of Edinburgh arrived at the palace half an hour late for dinner, and, the bomb exploding before dinner had commenced, a chance unpunctuality prevented a fearful tragedy.

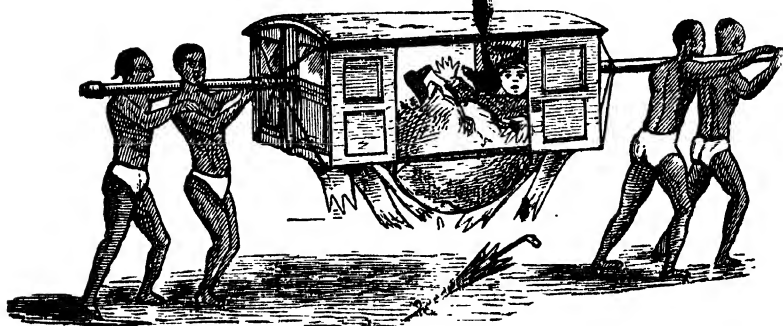
A good illustration of "the retort courteous" was given to Count Herbert Bismarck, the rough-and-rude son of Prince Bismarck, on the occasion of the German Emperor's visit to Rome. At the railway station, Count Herbert pushed rudely against an Italian dignitary who was watching the proceedings. The dignitary, greatly incensed, remonstrated forcibly against such unceremonious treatment, whereupon Count Herbert turned round haughtily and said: "I don't think you know who I am. I am Count Herbert Bismarck." "That," replied the Italian, bowing politely, "as an excuse is insufficient, but as an explanation it is ample."



I. •



II.



III.

THE INDIAN EMPIRE.

VOL. IV, No. 5.—SEPTEMBER 1891.

THE INDIAN TEA TRADE.



T was not long ago, before I had the good fortune to be entertained by a mercantile firm, that I was just as ignorant as the generality of the Indian public are to the present day, of one of India's principal trades—the tea trade. It is true that I would almost weekly notice in the daily papers advertisements of tea auctions having been held, and of thousands of chests at a time having passed the hammer; but my idea about all this was that these sales were attended exclusively by native grocers; that the tea sold was consumed entirely by ourselves in Calcutta and the mofussil; and that, as a matter of fact, cheapness was the principal characteristic of these sales, laboring under the impression that cheap things could only be picked up at an auction. The majority of the public are to day no wiser than I was before I entered the trade. It may, therefore, be interesting for them to know something about such ridiculous notions that prevail.

Tea is one of the principal articles of export from India, also from Ceylon, where it may be said to be still in its infancy, notwithstanding its development within a comparatively short space of time. Indian tea is manufactured in Assam, Cachar, Sylhet, Darjeeling, the Dooars, Kumaon, the Kangra Valley and Chota Nagpur. Assam growths are renowned for their strength. Cachar and Sylhet possess the same character, but in a less degree. Darjeeling with the Dooars, the Kangra Valley and Kumaon, produce flowery teas, and the last named district, teas of an inferior quality, *viz.*, appreciably devoid of either strength or flavor. Since the introduction of Indian tea, the old favorite, China tea, is being universally replaced. It has completely lost its former reputation, and is year by year fast losing ground, and growing in disfavor everywhere. Indeed, the day is not far removed when China tea will only be a thing of the past. The reason of its general displacement, nay expulsion, is because it has of late years depreciated very remarkably in quality, and is no longer considered genuine. Besides, it is by far more economical to drink Indian tea. In a report published by the London Board of Customs they say; "From information which has been afforded us on the subject, we believe that

we make a *moderate estimate* in assuming that Indian tea goes half as far again as Chinese tea, so far as depth of color and fulness (not delicacy) of flavor are concerned. Thus, if 1 lb. of Chinese tea produces 5 gallons of tea of a certain depth of color and fulness of flavor, 1 lb. of Indian tea will produce $7\frac{1}{2}$ gallons of a similar beverage." To add to this, the average price of 1 lb. of Indian tea is scarcely more than that of its rival.

A very small portion only of our manufacture, it will be surprising to learn, much to the shame and discredit of the Indians, is consumed in India; scarcely 2 million lbs. or 1-50th part of a whole season's crop is retained for local use; and as this quantity is apparently more than India, judging from experiences gained by experiments (the tottering condition of the Indian Tea Supply Company, Limited, furnishes ample proof), will ever consume, the proportion will diminish as the production increases annually. The bulk of the manufacture therefore, is exported to the United Kingdom. Australia takes a small portion, but promises very soon to absorb more. In the season 1887-88 we exported thence 2,408,000 lbs., in 1888-89 2,869,000 lbs., in 1889-90 3,596,000 lbs. and this season's 1891-92 export bids fair to outstrip the last, which stands at 4,879,000, by 1,000,000 lbs. America has just begun to give our teas a trial, and will soon accord them more of her patronage. French epicures are beginning to acquire a taste for our leaf, and Russia still purchases our finest descriptions.

Tea drinkers in India think it absurd to pay more than 12 annas, or at the outside Re. 1 for a lb. of tea. What will they say to tea having been sold in London, by auction, from the Gartmore Estate of Ceylon, at Rs. 145 and Rs. 345 per lb.; and in our sales in Calcutta, only so recently as the 30th of July last, at Rs. 40, Rs. 20 and Rs. 15 per lb. from the Nassau Tea Garden of the Kangra Valley district.

I shall now give a full idea as to the present position of our industry as compared with that of its rival in the United Kingdom, coupled with some other interesting facts.

From the year 1849 to 1859, China tea held uninterrupted sway; its consumption having increased from 50,000,000, to 76,000,000 lbs. In 1864 Indian tea made its appearance in the field; insignificant at the time, but promising to prove a formidable foe; it kept increasing in strength, so did its rival, (the consumption of China tea having increased from $85\frac{3}{4}$ millions to $118\frac{3}{4}$ millions, while Indian, beginning with $2\frac{3}{4}$ million lbs. increased to $18\frac{1}{2}$ millions within the space of 10 years, from 1864—1874; but in 1884 down fell the quantity exported by China, while Indian had almost doubled itself. Ceylon now appeared on the scene, and $1\frac{1}{2}$ million lbs. were consumed. In 1889 the figures stood thus:—

China tea, drank...	...	...	...	61,100,000 lbs.
Indian	"	...	...	96,028,000 "
Ceylon	"	...	...	28,500,000 "

Thus, within a period of 26 years, from 1864—1889, the average monthly home consumption of Indian tea steadily and rapidly increased from $\frac{1}{4}$ million lbs., or from 3 per cent. to 67 per cent., while that of China, by various fluctuations, commencing with less than $7\frac{1}{4}$ millions in 1864, and reaching the highest point, a little over $10\frac{1}{2}$ millions in 1879, when scarcely 3 million lbs. of our staple was drunk, ultimately fell to 5 million lbs. in 1889. The rapid and extensive consumption of Indian tea has been further

stimulated by the fall in prices. For instance, Medium Pekoes and Pekoe Souchongs have fallen in the course of eleven (11) years, from 1880-90, from 1s. 6d. to 10½d. and 1s. 3d. to 9d. per lb. respectively.

Large quantities of tea are sold locally every week by auction, and a good portion, the major in fact, is shipped direct to London to be disposed of there at the hammer. The teas sold here are purchased by our merchants, who, for the most part, act as agents on behalf of London wholesale dealers.

The tea trade is perhaps the most risky venture extant. Great caution, much foresight, and extensive experience, to say nothing of the requisite knowledge of the article itself, are indispensable to buy to advantage. But notwithstanding it often and often happens that purchases made here under the above conditions heavily lose money when resold in London. As a case in point: Facts and figures were so encouraging when this season, 1891-92, opened, that the most cautious buyers here, supported by the advice of their home friends (commercial), entertained the most sanguine hopes of the most satisfactory results attending their purchases, and consequently paid much higher than actual value. They very soon learnt how sadly erroneous their estimates of the London market were, for, upon resale, losses averaged from about 15 to 30 per cent. Not a single parcel of tea, even so much as "scraped out" much less shewed a profit. And cases of this kind are of common occurrence. I would, therefore, not be far wrong in saying that this business is absolutely clothed in uncertainty, as no amount of foresightedness or experience can say whether tea is going to pay or lose till it is actually sold.

Tea merchants place their interests in the hands of tea-experts or tea-tasters, whose services they engage at fair remunerations. These men have to undergo a long course of training in tea-tasting before they are considered competent to manage the tea purchase department of a firm. They must be able to discern, by means of their palate, the character of a tea,—in other words, whether it possesses strength or flavor, how much of the latter or the former, or of both, and accordingly determine its value. They must not forget at the same to throw into the account the various influencing agents of the market. They must be able, with existing facts and figures of tea statistics to gauge the future, at least two or three months hence, for teas bought here at a certain time can only be placed on the market some two months after. Their responsibility can never be over-estimated, and it is for this condition alone that they are remunerated. Upon their shoulders, in a great measure, rests the welfare of the business. They can make or ruin a firm. Such being the case, their appointment is always at a risk, and greatly dependent upon the temperament and mercy of their employers; probably, in many places, their actions are viewed with suspicion, and hence closely watched, and at seasonable opportunities scrutinised, if for no other reason, with the object of keeping them aright, and of preventing irregularities. They can, therefore, be never too careful, and must always look a dozen times before they leap, lest they should take a false step, and thereby render themselves open to rebuke. In relation to their employers their position is acutely delicate.

Not so the tea broker, or the independent individual in whose hands merchants place the disposal of their teas by auction. It is true he has a lot of running about to do, and a great deal of worry, and betimes a lot of snapping and snarling to accept with all deference and humility, and under choking sensations, which he has to bridle much to his own discomfiture; but he has the satisfaction nevertheless of knowing that he is a free agent. It is true that he gives his labor for the nominal sum of one rupee for every 100 rupees of tea sold, and a similar return for every 100 rupees of tea bought, but as nothing can be sold or bought, according to commercial rules, relating to the tea trade without his mediation, he turns a decent penny monthly. He can afford to pay Rs. 250 per mensem to the boarding-house keeper; as much or more in addition to his club for sundry pegs, etc.; keep horses and conveyances, and have left, after all such moderate expenditures, ample to retire upon after 6 or 9 or, not to be too inconsiderate, say 10 years' of service. He can always obtain market value, which is his own value, for a tea. It would be unreasonable to expect a better result of him, and he does not care a button whether you do or you do not. He is of all laborers the most independent, and least taxed, nevertheless the best remunerated. Merchants may come and merchants may go, but he goes on for ever. Every laborer is worthy of his hire, he knows this well, and he is pretty certain of his. News of every description he has always on the tips of his fingers to suit each of his customers according to each one's immediate requirements, and he can spout it out with a sympathetic assurance. A tea broker, like others of the same fraternity, is an anomaly. He goes to the tea seller and whispers confidentially to him that teas are about to lose in order to gratify his avarice; the very next moment, in the presence of the buyer, he blandly and innocently contradicts himself. I said before that a large proportion of the season's crop is shipped direct to London for sale by auction there. The tea broker abhors this foolish system of business; he has no sympathy either with it, or with its promoters, and is unceasingly at pains to destroy it for his own aggrandizement. He evinces great concern for a merchant's welfare, although in his heart of hearts he cares not a straw whether a merchant fails or prospers. It affects him little one way or the other. A tea broker is a man of circumstances, better, a man of fine sympathetic tendencies, and in this respect resembles the cold chameleon. He can at a moment's notice sadden at a man's losses or gladden at his profits, and in this fashion keep changing and re-changing the color of his feelings during his daily calls according to each one's needs. He believes himself to be overworked, but can still find enough of time to indulge in golf, tennis, cricket, and football, each in its proper season. Indeed he has so much leisure at his disposal that by excessive practice he excels in all manner of pastimes. He is one of the many who argue that "all work and no play makes Jack a dull boy." In all sincerity he is heard to say that it is not for the sake of playing so much as wise regard for his health that he does play.

In short, the tea broker is a clever, happy-go-lucky fortune fellow; and his motto is "*Live and let live.*"

QUILL.

REMINISCENCES OF THE MUTINY OF 1857.



COLONEL MALLESON has given a thrilling and interesting account of the stirring events that occurred in 1857, but in all his descriptions of sieges, battles, and other startling events during the Mutiny, nowhere does he mention the disarming of the old 65th Regiment, Native Infantry Volunteers. A brief account may prove interesting, although upwards of a quarter of a century has passed since then. Being present with the regiment on the critical day of disarming, a brief narrative of facts, which have never been published, cannot but repay perusal. The old 65th Regiment was one of the five volunteer regiments in the old Bengal Army enlisted for foreign service, *i.e.*, to cross the *Kala pan*. There were just as good men in the ranks of the volunteer regiment, as in that of any other: Brahmins, Rajpoots, Chuttrees, Mussulmans, &c., but not a single low-caste man, I believe, in the entire regiment; but belonging as they did to a regiment that must cross the seas if ordered, they were looked down upon by the other regiments in the army. I joined the 65th in 1839 at Khyouk Phyoo in Arracan. A trip by sea was necessary, and I proceeded to my destination in the good old frigate-built ship *Amherst*, Captain Paterson, Commander. In 1840-41 the regiment returned to India, and was ordered up to Dinapore. In 1852, the regiment was stationed at Lahore, and was ordered to Umritsar to build, and it was promised to be allowed to remain there three years. Scarcely had one year elapsed, when, unexpectedly, the regiment was ordered down to Burma. Landed at Rangoon in 1853; sent up to Prome and Mesyda which was then a frontier station, and from there ordered to Thyatmyo and told to build. In 1856-57, the regiment again returned to India, landed in Calcutta, and was ordered up to Ghazipore, to which station the 65th marched along the Grand Trunk Road. Soon after arrival, disturbing reports reached us of a very wide feeling of discontent prevailing throughout the entire Native army; our men being entitled to furlough, half the regiment were permitted to proceed, and on their return the other half would follow. The regiment brought back with them from Burmah several lakhs of rupees as savings during their stay there. Ghazipore is a nice little station, situated on the banks of the Ganges—a small civil station and the head-quarters of the opium factories, and noted for the manufacture of rose water, "Goolaub. Pannie" as it is called. Ghazipore in those days was a coveted station—cheap, no commands, and very little duty. Benares was three marches off higher up the river, and Azim-

ghur, another small military station, was also three marches distant. The 17th Regiment, Bengal Native Infantry, was stationed there. Government steamers were constantly passing to and fro. February and March passed away pleasantly; increased murmurings of discontent reached us; secret meetings were said to be held in the lines of regiments at midnight; and although nothing was *positively* known at the time, emissaries from other regiments visited our regiment, and tried to make the 65th mutiny. However, nothing occurred to disturb the usual routine of events. At last we were startled at hearing of the mutiny of the 34th Regiment at Barrackpore, and the vigorous measures adopted by the General, Sir John Hearsay, to stamp it out. Then news came of the mutiny at Dinapore and the subsequent siege of Arrah. Men came from there to tamper with the 65th, but all their efforts were unavailing. A sharp look-out was kept at the ferry opposite to Ghazipore, so as to prevent mutineers coming into the station. Government, we believe, were very uneasy as to the temper of the regiment, and they had long contemplated disarming them, but *how* was it to be effected? This puzzled them. Three companies of H. M.'s 57th arrived, and were stationed in the Civil Lines, also two guns, 7-pounders we believe. A large sum of money had accumulated in the Government Treasury, and this gave the Government uneasiness. They were anxious to remove it to Allahabad, but *how* no one could divine. At last a steamer and two flats, having on board 600 men of H. M.'s 64th Regiment arrived, *en route* to Allahabad; they had to coal—the opportunity was too good to be lost; 400 out of the 600 were landed, 20 rounds in pouch, to these were added 200 men of H. M.'s 37th Regiment in the Civil Lines, and this force of 600 Europeans and 2 guns paraded for service. An order was sent to Colonel Burke, Commanding the 65th Regiment, by Colonel Damer to turn out the 65th at 12 o'clock. All was kept very secret. That day, about mid-day, suddenly bugles were heard calling the assembly. It was a piercing hot day,—hot wind blowing and clouds of dust. I jumped up, got into my uniform, and ordering my pony, off I went to parade; on arrival, found the regiment drawn up in line, looking very fit and ready. Before the officers fell in, we were all enquiring of each other what was up. No one could tell or would tell. Fell in we did. We had been standing so for a few minutes, when he heard the roll of gun wheels, and soon after, saw a column of Europeans marching towards us; up they came steadily, and deployed about 100 yards in front of us and unmasked the two guns, which we learned, afterwards, were loaded with grape, for we saw the port fires lit. As the Europeans deployed, our regiment came to the shoulder; a few minutes elapsed when the order was given, "order arms, and pile arms." A moment's hesitation, but the order was complied with, when up came the line of Europeans at the double, and halted within five yards of our regiment. I must mention the 65th had 20 rounds of ball ammunition in pouch, and had one evil-disposed sepoy attempted to show fight, the example would have been followed, and a pretty business it would have been. The guns would have discharged grape, and many of the officers would have stood a poor chance; but luckily our men stood fast; not a murmur. The Europeans took possession of their arms and accoutrements, and the whole thing was over. We fell out, and

once more breathed freely. The men were dismissed and went off to the lines, and we stood together and chatted over what had so quickly happened;—the disarming of the 65th. The muskets, &c., were escorted to the Civil Lines by the Europeans, they and the guns returned to the ghaut and re-embarked on board the steamer, and thus ended a very critical day. "All's well that ends well." I forgot to state about a week before this event, three companies of our regiment were ordered to the Treasury under Native officers, to convey the treasure, some ten lakhs, to a steamer which had arrived specially to take it away. They did it without a murmur, but were sorely tried by the budmashes of the city, who jeered them saying, "Why are you taking away the treasure, why not leave it? When you mutiny we will join you and share it." But all of no avail. The men did their duty, and behaved loyally throughout. The two trials they had undergone, clearly proved the loyalty of the regiment.

After the disarming, everyone felt more easy and comfortable,—it was an uneasiness removed. Our men did not seem to mind it, and had distributed to them six-foot *latties* (sticks) with which to perform their duties. They were allowed to keep their uniform. About a week after this we heard of the mutiny of the regiments at Benares, —in fact the firing was distinctly heard. Then they marched off for Lucknow. A few days after this, the 17th Regiment also mutinied at Azimghur; they killed one officer, the Store-Master, because he obstinately refused to give up two guns he had charge of. The first intimation we had of the 17th having gone was seeing the Colonel and all his family drive into the station in an old barouche, to which were harnessed two horses. They had travelled all night, and luckily were not pursued. The 17th burnt down the station, looted the treasury, and made off to Lucknow. Strange events were occurring all around us and the Mutiny had then broken out all over the country. We heard of the Cawnpore massacre and how General Wheeler had gone into an entrenched camp. I had a sister staying at Cawnpore with some friends. She wrote to me her last letter—and which I possess to this day—stating, they were all in the entrenchment, but asked for relief. Alas! we all know that never came, and of the terrible massacre that ensued. Some few days after, as I was driving my wife in our buggy one morning round the race course, we saw a European dressed as an Arab travelling through the country, and he came up towards us. I at once recognised him to be Mr. E. P. Bradford. His wife followed him in a dooly; they had come from Fyzabad, where the regiment had mutinied, burnt the station, looted the treasury and killed all the officers. The regiment was the 28th Native Infantry. Mr. Bradford was Assistant Commissioner at Fyzabad, having once been an Artillery Officer. They had some lucky escapes, and seemed very rejoiced at reaching Ghazipore. We asked them to take shelter with us, which they accepted, and remained with us a week, and proceeded by the first steamer down to Calcutta. They had some narrow escapes between Fyzabad and Ghazipore. By this time all the regiments round about us had mutinied, so we did not know what would happen next. Our men who had gone on furlough began to return, and the other half were allowed to proceed. A steamer and two flats arrived from Calcutta and disembarked "Peele's Naval Brigade," men belonging to

H. M.'s Ship "Shannon," laying in the Calcutta river, and who had volunteered for service; a fine, able-bodied set of men they were—strong, bold and healthy-looking; all dressed in blue, with a straw hat and black ribbon round it, with the words in gold letters "H.M.'s Ship Shannon." They were located in a large pukka house not far from where I resided. What a jolly lot they were! Armed with carbines, they looked very fit and ready to do anything—a jolly rollicking set, their ideas of *meum* and *tuum* were very vague, a few used to stroll into our garden, help themselves to fruit and vegetables, and defy the old *malti* who came running to me to complain of them. They also helped themselves to fowls and ducks. All luck for the pot! Who could say anything to them? They were too valuable an acquisition of Europeans to be despised, and history tells of the valuable services rendered to Government during the Mutiny and at Lucknow, where they dragged their own guns into action and served them with effect. "Peele's Naval Brigade" was indeed a tower of strength to the State during those times. We never could find out *why* the men were disembarked at Ghazipore. They remained about ten days and then left for Allahabad, at which place troops were collecting for the advance upon Lucknow.

About the end of May, before being dismissed, an order suddenly, reached us that "three companies of the 65th will proceed to Azimghur, re-occupy the station, and restore order." Civilians were also ordered out—away they went, 300 men under Captain Robertson. They had been there about a week, when they were surrounded by thousands of budmashes, armed, and also a few mutineers. Things began to look unpleasant, when reinforcements were called for, and I was sent out with another company of the regiment, 100 men. I made the three marches in two, as we were urgently required. On arrival I found the little force within an entrenchment, and surrounded by the enemy. A squadron of irregular cavalry also arrived that day to our assistance. We had now a force of about 450 men, including cavalry, so by 12 o'clock we left the entrenchments and attacked the mutineers, took two guns from them, and completely routed them, killing a large number of the enemy. The cavalry behaved very well; made two good charges, lost one man, but they cut up several of the budmashes. The irregulars that had come were of "Holme's," about 80 men and two Native officers a very smart lot, particularly the Native officers; they often used to visit me, and talk over the state of affairs; of course they said their men were loyal to the backbone, subsequent events proved another tale. When sitting talking with me, the old Resaldar, a man with one eye, was a fine specimen of a Native officer, had seen much service, and had several medals and other decorations. He was very fond of showing me his *tulwar*, which he drew out, and pointed out how sharp it was. It was bent like a razor. After the defeat of the budmashes, order began to be restored, and all was going on serenely when an order suddenly arrived, that Azimghur was to be vacated and all the troops were to return to Ghazipore.

What a vacillating Government! Did not know their own minds for a day. Immediate preparations were made for a return, and the day after receiving the order, we marched at daylight—it was three marches. The first we got over all right; on reaching camp the second day, our men were ordered to pitch their tents in a grove of mango

trees, and the irregulars were told to occupy a "serai," being conveniently situated. I forgot to mention that a young officer, called Havelock, a nephew of Sir Henry Havelock, commanded the cavalry. Well, the order was given, and we were all going to camp, when we saw something was up with the irregulars—they remained drawn up as they had come in. Presently one of their Native officers galloped up to us, saluted, and said, that "they were all going back to Azimgurh; that their regiment had mutinied at their head-quarters, killed all their officers, (a fact) and were marching to Lucknow, *via* Azimgurh, and as they had received orders to rejoin their regiment, they must obey." Off he went back to his squadron. We were taken aback, and immediately held a consultation. Captain Robertson was commanding. Some suggested one of our companies that were loaded should fire a volley into the cavalry, but wiser councils prevailed, and lucky it was so, as we shall presently relate. I was ordered to proceed to the mutineers, for so they were, and to try and persuade them to remain loyal. I went straight to them, and the two Native officers came to meet me. What, said I, if they cut me down? So I kept my hand upon my revolver which was loaded. Both very respectfully saluted me, heard my say, but replied, "We regret very much we can't eat the Sircar's *neemok* (salt) any longer, and saluting me again, they rejoined their squadron, made them form in three's towards where they had came from, gave the order to 'advance,' and away they galloped. About a mile from camp, they met all the civilians, doctor and their own officers coming slowly along. Strange to say, they drew up on the roadside and saluted their officers, told them what had happened, and where they were going. He was completely overwhelmed, for if ever a man thought men loyal, it was young Havelock. He appealed to them in tears to remain loyal, but no. At last he said: "Well, is there no one will come and rally around me and keep up the name of the old Regiment?" Strange to say two Afghan troopers left the ranks, galloped up to him, saluted and said, "We will stand by you to the death!" No sooner said, then off went the squadron again to Azimgurh, and as we heard, subsequently, never drew rein until they joined their regiment. Strange men! Two days before, they had charged the mutineers, killed many, and now they threw in their lot with them. When all sat down to camp breakfast that morning poor Havelock had not a word to say; we pitied him, as he was always boasting of the loyalty of his men. Strange to say they attempted to kill no Europeans; they might have sabred them all, but as they had not tasted blood, some good fortune induced them to spare the officers. The next march took us into Ghazipore, and the adventures of the day before surprised every one. Facts are stubborn things, and all I have related was true to the letter, because I personally witnessed them. All was quiet at Ghazipore. No mutineers ventured across the river, and after being disarmed, what object had the regiment in deserting their colors? At Ghazipore the regiment remained until the war in China broke out, when they all, to a man, volunteered to go, —and go they did.

HILLS NORTH OF DEYRAH.

“ON THE ROAD TO GNATHONG.”

A SKETCH IN 1888.

Shadow-love and shadow-kisses,
Life of shadows, wondrous strange !
Shall all hours be sweet as this is,
Silly darling, safe from change ?

All things that we clasp and cherish
Pass like dreams we may not keep ;
Human hearts forget and perish,
Human eyes must fall asleep.

EMMA LAZARUS (*Heine*)



OW purple hills, and a rose-flushed sky, and high overhead a silver crescent moon. “It is time to say good-bye, sweetheart,” said a man ; for there were two out there in the twilight of that hour between the waning day and coming night. A bugle sounded from some far height, ringing down into the valley, and echoing back among the hills, telling the hour of the dying day.

“You say I must go now,” continued the man, holding a pair of small, trembling hands in his own close clasp. “It is growing late, and I suppose we must say good-bye.” He paused for a few minutes, taking in the beauty of the world around, and of the face which was raised to his, and thinking with dismay of the separation before him. A cuckoo called from a neighbouring hill, and the sweet, plaintive, monotonous notes which broke the silence roused him. “Kiss me once, sweetheart. No, just once on the lips before we part,” he pleaded, as the girl shyly turned her cheek to him.

The hills grew grey and the rose-light died ; a faint moonlight lay on the landscape, and one after another the stars came out with all their brilliant tropical beauty, and filled the skies. Away to the north rose a cold white mass of mountains ;—still, silent, and awful in their grandeur ;—the setting sun had warmed them for a time into a faint glow of pink, but the flush had died away, and now under the moon-lit snow they lay purely white, intensely cold—a region untrodden by human feet, unvisited by beast or bird, or any other living creature. The jackal’s cry broke the still night-air, and from his mountain-lair, now and then the wild dog howled his dismal cry. The lovers walked homewards ; he, tall and soldierly ; she, small and clinging. The moon and the stars and the night-world around them heard their vows of constancy ; heard the old story which no doubt had been told hundreds of times before on that very road, under the shadows of those very mountains,

and in more than one language both by man and woman; and probably even the very birds had sung it too on the overhanging branches of the trees on hill and khud, sung it to the accompanying music of the waterfalls that rushed down the hillsides. "The Derby Hills are more dear to me than these grand old Indian hills up here," said the man to the weeping girl beside him. "And there we shall make our home when my time is up, and I leave the service. We shall have a nice little cottage in the village where I was born, and we shall be very comfortable and as happy as the day is long. It is not likely to be a very brilliant affair—this Sikkim campaign—and I fancy we shan't have much to do, not much fighting, or honor and glory. But it is a soldier's fate to be obliged to leave his girl behind him sometimes," and the speaker laughed a cheery, hearty laugh.

"You will be true?" he asked anxiously, looking down into the pretty childish face which barely reached his shoulder. She was only a little nurse-maid, with an unusual and, perhaps, unfortunate share of good looks; an uneducated little girl who spoke with a decided accent which betrayed the Asiatic blood in her veins; a girl of beauty, but decidedly dusky beauty, who dropped an *h* here and picked up one there, but who was, nevertheless, all the world to this handsome, broad-shouldered, English soldier, who thought her dark eyes worth all the blue and grey eyes in the old country, and who thought she would be true to him in life or death, as he knew he would be to her. "*Il y a toujours un qui aime, et l'autre qui se laisse aimer*," runs the old French proverb, and perhaps there are few of us in this world who do not get more than we give, or *vice versa*, and Fred Ridgeway, Sergeant in Her Majesty's—th Regiment of Foot had given his all, thinking he had as much in return. It is well for us we cannot always sound the depths of a human heart; and he thinking that pretty little Kitty the nurse-maid's heart could hold, and did hold as much as his, was content in his ignorance, while she,—well she thought of course for the time being that there was no one in the world like Fred, no one so handsome, so brave, and so strong, or so splendid in his scarlet, as this soldier-love of hers; but then any one else would have done as well, while Kitty to this man, was Kitty, and no one could have filled her place to him.

Kitty O'Donoghue with an Irish ancestor somewhere very far back in the annals of the family, and with a great many little black, if comely, cousins, had known many loves, though there had been none like Fred Ridgeway, and would probably know many more, unless she got married and settled, but the man's first and last love was Kitty O'Donoghue, which was a pity, said all his friends, for he could have found many a sturdy English lass to become Mrs. Ridgeway whenever he liked, for there was more than one good-looking, marriageable English maiden in the barracks and its surroundings where his lot was cast for the time being. And so these two said farewell once more at the door of a certain house, each heart broken for the moment, and another bugle went somewhere in the distance, and the man strode off feeling a mist before his eyes and a lump in his throat, while the girl went up to her room, sobbing, and very nearly awoke a child who slept in a cot beside her bed.

It was morning—and moonlight in the plains. Over the red

east shone one bright star, and the moon, a great golden ball, hung high in the heavens. The trees stood out still and black against the grey sky of dawn, blacker still against the rose-red of sunrise. Now and then the bark of a pariah dog could be heard from some neighbouring bustee, and only one other sound—that of horses' hoofs—broke the silence, for there were two people riding there through the fresh morning air and the moonlight. One of the two was a girl, who was thinking how lucky she was on the whole to have married a man who could now and then afford to let her have a horse to ride, and who held a very respectable position in the Telegraph Department. For one moment she looked back with something that was very like a tender regret for the hard times, when careless mistresses thought that a nurse-maid was a machine which felt nothing, and out of which as much work as possible had to be extracted; of naughty, self-willed children, who made life a drudgery from morning till night, and who, with all the carelessness of childhood, often hurt her feelings with their childish, unmeaning remarks, picked up probably from their elders—hard times which were amply repaid for by the tender adoration of the man, who now lay in his lonely grave among those mountains, towards which they had often looked together. There had not been much honor and glory, as he had said, but he had done his duty, and in doing it had found his death. And the girl he loved had wept a night and a day, and had wedded an old love, who had three times the pay that poor Fred Ridgeway got in serving Her Majesty.

"Come on Kitty," called out her husband, "what are you looking so thoughtful about? Let us have a canter," and the girl touched up her horse. The sun had risen higher, and the Indian birds were awake and had begun to call, filling the air with sound, as the two rode under the palm trees home.

GRETCHEN.

SCIENCE NOTES.

PHYSICAL DEVELOPMENT OF CHILDREN.



VERY interesting paper was read before a recent Medical Congress, Berlin, by Dr. Axel Key, of Stockholm, on the development of puberty and its relation to morbid phenomena among school children. In Denmark and Sweden it has been the custom for many years to weigh and measure the school children every year. Out of 15,000 boys and 3,000 girls the results were as follows: "In the seventh or eighth year of life boys grow considerably in height and in weight, after which a delay sets in which reaches its maximum in the tenth year and lasts till the fourteenth year, when a considerable acceleration of growth suddenly sets in. This acceleration lasts till the end of the seventeenth year. Its maximum is in the fifteenth year. The acceleration is at first in height and later on in weight, gaining its maximum in the latter in the sixteenth year. At the end of the nineteenth year bodily development of youth seems to end. In girls the course of development is quite different. The decrease in growth after the eighth year is not so great as in boys, and yields in the twelfth year to a rapid increase in height. The acceleration in the increase in weight comes later, but outstrips it in the fourteenth year. In the seventeenth or eighteenth year the increase is but slight. The increase in weight, however, sinks to zero, almost, in the twentieth year, when the growth in women may be regarded as ended." A remarkable thing, as pointed out by Dr. Key, is that boys grow faster than girls in weight and height till the eleventh year, then more slowly till the sixteenth, and then faster again. With slight variation these relations obtain all over Sweden and Denmark. In Italy and the United States of America the period of puberty in girls ends at least a year earlier. "In the spring and summer the child grows more in height, while in the autumn and winter it increases more in weight." "How is it now with the health of school children during the development of puberty? It was found that 40 per cent. of the 15,000 boys in the high schools in Sweden were ill; that 14 per cent suffer from habitual headache, 13 per cent from chlorosis." "We ought," he concluded, "to adapt our demands on the youthful organism to its strength and power of resistance during the various phases of development, to promote the health and vigorous bodily development of youth better than we do now. I, therefore endorse, from the bottom of my heart, the words which Johnn Petter Frank, the father of school hygiene, uttered a hundred years ago: 'Spare their fibre still, spare the forces of their minds, do not waste the energies of the future man in the child.'"



THE NEED FOR A SPECIAL TRAINING OF THE SENSES.

URING the past ten or fifteen years there has grown up a need for special training of the senses, in order to use, properly, scientific instruments, not in study or in any way applying to it, but as necessary adjuncts of business communication in every-day life. First on the list will come the telephone. Most persons using one for the first time find themselves absolutely *hors de combat*, unable to recognize a familiar voice, and are only conscious of the most helpless hearing-deafness. After a short training the ear and mind adjust themselves with wonderful nicety to the new duty required of them, and learn to recognize a voice as unerringly as though talking face to face with the individual who is, perhaps, miles away.

Following closely in the wake of the telephone, which may be looked upon as the pioneer of the inventions which will later rely upon the auditory nerves or hearing for their use, is the graphophone, a marvellous little machine, whose fitness for the work it has to do is so wonderful that, were it not explained on purely scientific principles of natural laws, man would think the inventor of it in league with the "Buyer of Souls." It records sounds by the vibrations of the air acting on a steel stylus, which is so placed that it cuts or traces fine lines on a cylinder of rubber coated with wax. These lines are of varying depth, according to the force of the sound waves. The vibrations or sounds are reproduced by the aforementioned cylinder being revolved under a small stylus to which is attached a pair of tiny ear trumpets which are so adjusted that they transmit with absolute fidelity every sound wave to the ear.

It is impossible to predict the boundary line of scientific discoveries, and the uses to which man may put them in the near future. But to follow out the idea of the trained senses, take the vision, how the microscopist with his little instrument is every day opening new vistas. It is only the supreme intellect of the human mind which renders what may be called the brute sense of man of use to him, because when untrained they rank far below the senses of the animal, though in the latter they are not so evenly balanced as in man. The eagle and condor have wonderful vision. Of these birds it is said that the former can face with an unflinching eye the sun when shining with full noontide glory, and of the latter Prescott in his "Conquest of Mexico" says, "The sight of the condor of the Andes is almost beyond belief. When a horse or mule drops by the roadside, scarcely a moment passes before one or more of these huge birds may be seen hovering over the unfortunate animal, proving plainly that they are guided by sight alone."

The sense of smell in animals is perhaps found in the highest perfection known in the well-bred bloodhound. This animal will follow a trail hours after the man or animal has passed, and never lose it, even though it had been passed over by hundreds. The sense of touch possessed by the clumsy-looking elephant is most wonderful. The tough-looking hide which covers him would never make one think he could lay claim to the sense of touch in any degree of perfection.

Man supplements what he lacks by using his knowledge of the laws of nature. Thus with the aid of the microscope and telescope

he can compete with the eagle and condor. Up to the present time he has not invented any instrument which will aid in distinguishing odors, but passing over that, he has covered nearly the entire range embraced by the five senses—sight, taste, touch, smell and hearing. When we speak of trained senses, we do not for an instant mean to imply that the man of the present age is better equipped by nature with the senses than his ancestors were, but that by the aid of scientific instruments he has supplemented the use of these senses to an almost supernatural extent. However, beyond a certain point he cannot go, as it is only in his power to use intelligently the things that be, not to create. Every invention of man thus far has only consisted in some new or perhaps forgotten application of a law of nature, and is not in any way dependent on the inventor personally, save in his ability to make his knowledge of practical use to the majority of mankind.

The man of science is the idol of the present age. His daring and success in the field of invention have blinded the eyes of the people to the fact that there can be a limit to his power, and make them lose sight of the reality that he is only a pupil in the school of nature, where the doors are open to all. It is not probable that any special benefit will be done mankind physically by this training, for it does not demand any abnormal conditions. It is simply a better understanding of our physical capability of using our senses by intelligently applying them to obtain a result known to be as certain as the law, "water seeks its own level."

There is a vast change in the tendency of the inventors of the present age, and this generation specially. Force is guided rather than controlled, and the result is that machinery has become more delicate and often more simple, but requiring by that very fact a more highly-educated mind to operate it than did the crude machinery of the early inventors, where muscle was as much needed as knowledge. All that is changed. Ignorance is now often death dealing, particularly when electricity is the motive power or where chemical compounds are used. Every day adds to the necessity for a practical working knowledge of the numerous inventions which are now found in daily use in all civilized countries the world over.

No one who has ever read "John Halifax, Gentleman," can forget the masterly description given of the personal antagonism felt by the working men to the machinery which was placed in his mill by the hero. In their blindness they could not realize that mental labor placed them on a higher plane than manual labor, and that machinery at its best can only supply muscle, not mind, and that they were being given, by the very machinery which they were bent upon destroying, their one chance to be something more than mere machines themselves. It is to be hoped as the world grows older it grows wiser, and that we are being carried to a "Golden Age" on the wheels of the inventions of the twentieth century.

NATURAL HISTORY NOTES.

AFRICAN EARTHWORMS.



FROM a recent report on Yoruba Land, the native territory adjacent to Lagos, by the Assistant Colonial Secretary of Lagos, who, after describing the wasteful system of cultivation employed by the natives and the wonderful rapidity with which the soil recovers from it, we gather that the mystery is solved in a simple and unexpected manner during the dry season. The whole surface of the ground beneath the grass is seen to be covered by rows of cylindrical worm casts. These vary in height from a quarter of an inch to three inches, and exist in astonishing numbers. It is in many places impossible to press a finger upon the ground without touching one. For scores of square miles they cover the surface of the soil, closely packed, upright, and burnt by the sun into rigid rolls of hardened clay. The rains ultimately break them down into a fine powder, rich in plant-food and lending itself easily to the hoe of the farmer. These casts are very different in form from those familiar in English gardens. On digging down, the soil is found to be drilled in all directions by a countless multitude of worm drills, while from 13 inches to 2 feet in depth the worms are found in great numbers in the moist subsoil. It is impossible to estimate their number per cubic foot, as the quantity varies according to the season and the locality. Having carefully removed the worm casts of one season from two separate square feet of land at a considerable distance from one another, and chosen at random, Mr. Millson found the weight to be $10\frac{3}{4}$ pounds in a thoroughly dry state. This gives a mean of over 5 pounds per square foot, and a total of not less than 62,233 tons of subsoil brought to the surface on each square mile of cultivable land in the Yoruba country every year. This work goes on unceasingly year after year, and to the untiring labors of its earthworms this part of West Africa owes the livelihood of its people. Where the worms do not work, the Yoruba knows that it is useless to make his farm.

Estimating 1 square yard of dry earth by 2 feet deep as weighing half a ton, there is an annual movement of earth per square yard of the depth of 2 feet amounting to not less than 45 pounds. From this it appears that every particle of earth in each ton of soil to the depth of 2 feet is brought to the surface once in twenty-seven years. It seems more than probable that the comparative freedom of this part of West Africa from dangerous malarial fevers is due, in part at least, to the work of earthworms in ventilating and constantly bringing to the surface the soil in which the malarial germs live and breed. From specimens which Mr. Millson has sent home, it appears the worm belongs to a new species of the genus *Siphonogaster*. The type of this genus has been quite lately described from the Nile mud.

ANIMAL LIFE ON A CORAL REEF.

(Abstract of a lecture by Dr. S. J. Hickson, at the London Institution.)

LENTÉOUS fauna is to be found in nearly all the shallow waters of the tropical seas, but nowhere is there such a crowd of marine animals of all kinds as there is in the region that extends from the growing edge of the coral reef to a depth of some 10 to 15 fathoms beyond it. This may be due to the fact that in this region there is plenty of light and heat, no great or sudden changes of temperature or of the chemical composition of the water, and there is an abundant food supply brought by tidal currents from the surface of the ocean. Here it is, then, that we find the richest fauna. Here it is that the struggle for existence is most severe, and here it is that the animals are protected and concealed by the most pronounced marks and colours, and provided by nature with various forms of armour, stings and spines to defend them in their battles with their enemies.

One of the most interesting results of this severe struggle for existence, or perhaps it would be more correct to say of the large number of species competing for existence, is the important faunistic difference that may be observed between one reef and another—nay indeed, between one part of a reef and another part of the same reef.

Darwin long ago pointed out that in the struggle for existence a very slight advantage gained by any one of the competing species may entirely alter the whole aspect of the field; and it follows that a very slight though constant difference in the physical conditions, such, for example, in the case of coral reefs, as rapidity of tidal currents, amount of surf or character of the shore rocks, may completely change the characteristics of the fauna. There are, it is true, some genera and species that are apparently found on all the reefs, such as *Tubipora* and *Madrepora*, but every reef has its own peculiar characters, and a naturalist never feels when he is examining one that he has seen something exactly like it on any previous occasion.

The majority of the corals that are found on the reefs of North Celebes belong to two great orders—the *Zoantharia* and *Alcyonaria*. The prevailing color of the living *Zoantharia* is dull greeny brown. The tentacles and the oral discs, and in some cases the growing or younger branches, as a whole, may be very brightly colored. White, pink, emerald green, violet and blue, are colors frequently met with in different parts of the *Zoantharian* colony. The colors of the *Alcyonarians* may be due to the bright red, yellow, or purple spicules or to the rich brown or green color of the soft parts. There is very considerable variation in the color of the soft parts of the *Alcyonaria*. The tentacles of the polyps of *Tubipora*, for example, may be any shade between bright green and pinkish brown. A species of *Sarcophytum*, again, common on the shores of Celebes, showed green and greenish yellow and yellow examples within the same half mile of reef. All of these coral colors, with the exception of the color of the spicules mentioned above, are soluble in spirit, the soft parts becoming, after prolonged immersion in this fluid, pale brown. The alcohol extracts of a considerable number of corals have now been submitted to spectrum analysis, and the bands they exhibit show close affinities with vegetable chlorophyll.

There is no experimental evidence at present that proves that the colors of the corals, nor indeed of the sponges, are either protective or warning in function.

It seems much more probable that these brilliant colors represent different stages in the building up or breaking down of some complex chemical substance that is always present in marine zoophytes, and performs some important physiological function.

Besides the numerous sponges, corals, holothurians, molluscs, etc., that are attached to the bottom or creep but slowly from place to place, the numerous species of swimming animals that are capable of active movements in pursuit of prey or escaping from their enemies must be considered as part of the fauna of the coral reef. These include fishes, cephalopods, and crustacea, and those of them that seem to live habitually among the corals of the reef are characterized by the possession of very curious spots or stripes and very brilliant colors.

Soon after my arrival in Talisse a large lobster was brought to me marked by broad transverse bands of blue and white; a large squilla is not uncommon marked with similar bands of white and deep purple, and the little prawn *Stenopus hispidus*, that I found in a tidal pool close to a reef, has bands of red and white. The cephalopods have also peculiar markings. One specimen that I found, *Octopus lunulatus*, had large blue spots over its body and arms. The fishes again are marked with spots and stripes of various kinds and many brilliant colors.

Without going too deeply into the argument, we are justified in saying that these animals are so marked and colored because they live among the brilliant surroundings of the coral reef; or, to put it in another way, animals similarly organized and of similar habits would be at a disadvantage on the coral reefs if they were not so marked and colored. The other fishes of the tropics do not possess these curious and beautiful characters; the sharks, bonitos, flying fishes, herrings and others that do not live habitually on the coral reefs are not unlike in general color and ornamentation the fish of temperate seas. Again, the crustacea and fish of the tropical rivers and lakes are not as a rule characterized by any peculiar coloring or marking. These peculiarities, then, are not directly due to the high temperature and bright light of the tropics, but they are due to the character of the surroundings.

Most of the colors must be considered to be concealment colors. *Stenopus hispidus*, though so very conspicuous when taken out of the water, was extremely difficult to see in the pool where I found it. I should, in all probability, have failed to notice it, had I not quite unintentionally and blindly touched it with my stick. Like all animals protected by concealment colors, it remained perfectly motionless when alarmed. When looking down on to the growing edge of a reef from a boat on a calm day, it is very difficult at first to see anything but the corals and sponges. After a time, when the eyes become more accustomed to the light, the fish may be distinguished. Those that are colored blue are much less readily seen than the gold, yellow, and red varieties; but an examination of the fish that I caught myself, and were caught for me by the natives, showed that the fish in which blue is the prevailing color are much more frequent in the very shallow water, while those that were caught in water

from 15 to 20 fathoms were more frequently red or yellow. The blue color seems to be a protection for the fish from air-breathing enemies—the eagles, ospreys, and hawks; and as these enemies can only approach them from above, the colors are frequently confined to the dorsal sides. The red and yellow colors of the fish seem to be a protection from animals, such as the sharks, perch, and other carnivorous fish, that approach them from the deeper waters beyond the reefs. Thus red and yellow fishes rarely have these colors confined to the upper sides, and many of the blue fishes are colored red or yellow ventrally.

It is difficult to frame any general rule to account for the curious distribution of the colors of these animals in spots and stripes. Speaking in very general terms, for there are many exceptions, the fish that browse on the corals, possessing small mouths and chisel-shaped teeth (such as the chætodons, trigger fish, and surgeons), are striped; those that feed on other fish, and have large mouths armed with carnivorous teeth, such as the Serranidæ, are spotted.

The only example of what appears to be a warning color that I have noticed occurs in connection with the spines on the tails of certain surgeons and trigger fish. *Acanthurus achillis*, for example, has a uniform purple color, but there is a bright red patch surrounding the formidable tail spines that give these fish the name of surgeons. Similar warning colors are very pronounced also in *Naseus unicornis* and *Naseus lituratus*, and in some of the Balistidæ.

ADVENTURES IN SEARCH OF A FUQUEER.

(Continued from page 102.)



ALL being ready, a fair start was made, the weather being glorious; so we began doing the regular marches to Tevee, the capital of Guridhal, which was distant three marches, or about 40 miles. Shooting was to be had *en route*, but owing to the jungles being so thoroughly poached by native shikarces, as well as European gentlemen and sportsmen passing and repassing to the interior, game of all kinds was scarce, and hardly worth the fag. On reaching Tevee, we made a halt for a day or two to lay in supplies, and pay our respects to the Rajah.

Tevee is picturesquely situated on the junction of two rivers, but has no pretensions to architectural beauty, the Rajah's "Mehal," palace, as it is called, being a wretched, small, pukka building, surrounded by a native population, the city teeming with filth of all kinds. The dāk bungalow where we took up our abode is just on the banks of the river and has been allowed to fall into ruins—broken doors, and paneless windows. From the bungalow to Tevee side is a chain suspension bridge, spanning the river which is of considerable breadth and depth. On a European traveller reaching the bungalow, he is supplied with rations—a goat, rice, ghee, dal, &c., &c., and this is sent daily, as long as he remains. The day after arrival, we went across and paid a visit to the reigning monarch, whose name was 'Bahadoor Shah.' We found him a dull oriental; no conversation, and no intelligence. Wind and weather were talked of, so we wished him good-bye. The following morning we started for Srenuggur, a city of considerable size, and situated in British Guridhal. It is three marches from Tevee, and to reach it another fine suspension bridge has to be crossed. We had a pleasant time of it; got some good shooting *en route*, and on reaching Srenuggur pitched our tents in the compound of the dāk bungalow. Beyond Srenuggur is Penree, on a fine elevation, where the Assistant Commissioner resides. Penree is famous for its oranges. In days gone by, the ancient Rajahs of Guridhal used to reside there, and the ruins of their palace, standing on the banks of the river, are well worthy of a visit. The day after arrival, we strolled over to see them. They must have been of considerable extent; painted domes still remain, and latticed stone windows are still visible. During our visit exploring the palace, we thought of the black-eyed houries who no doubt must have, at one time, peeped through these windows! Alas! how changed. During our exploration we came across a vault or room covered over with débris; the large stone door was intact, but

bore traces of rough usage. We ascertained it had been the treasury, others said it has the armoury, nevertheless our recital of the mysterious vault or room when we first wrote the "Adventures in Search of a Fuqueer," caused the authorities to break open the door, when it was found full of swords, spears, matchlocks, &c., &c. Whilst admiring the old palace architecture, and pondering over the grandeur of ancient days, we observed one of the Bengalee attendants running over towards us, while he said: "Come away sharp, master; we have made a wonderful find! no less than 'Beckram Shai,' the Rajah's brother, disguised as 'Baramcharce' Fuqueer!" Startling news indeed. I immediately retraced my steps and accompanied the Bengalee to where he had left Goolaub and his brother Bengalee, keeping watch and ward over the fuqueer. It appears that when the two were strolling about in the city, they casually heard that the Mahunt of the place was giving a great feast to all the fuqueers far and wide, and curiosity prompted them to go and see the feast. Hundreds of fuqueers were sitting in a row partaking of food, and each had a blanket presented to him. While passing up the ranks of these devotees, the trio suddenly spied Beckram Shai, and immediately recognised him. Two remained watching him, and the third was sent to apprise me of their luck. It was indeed luck, for we never expected to find the bird so soon, as we had heard he had proceeded far into the interior. My Bengalee attendant led the way to where the fuqueers were being regaled, and we were told, when he came up to the fuqueer he would stand still. My curiosity was highly raised. I entered the enclosure, and sure enough there must have been some five hundred fuqueers at least assembled there. Suddenly he stopped, and there stood Goolaub and the other Bengalee right opposite to Beckram Shai! I had a look at him, passed on, and beckoned Goolaub to join me. Old Goolaub's eyes sparkled. "What splendid shikar have we got, sahib!" said he. "Yes," I replied, "but are you certain it is the game we are in search of?" "I am sure it is, as both Bengalees have recognised him, and he had acknowledged them." "Well said! Goolaub; two of you remain and watch him; I will return to the dâk bungalow, and wherever Beckram Shai takes up his abode for the night, you come and inform me—but recollect one man must watch him closely." Back I went to the dâk bungalow, had dinner, and just as I had finished, one of the Bengalees arrived in great glee. "Master," he said, "we have run the fuqueer to earth; come along quick and see him. I have left Goolaub watching him." Finding I could hardly believe the news, up I jumped, took my hat and stick, and away we went to see and be introduced to Beckram Shai. It appears that, after much trouble, they had dragged him into a house, after which they sent to me. I found him to be a man of about 30 years of age, good-looking and intelligent: he had assumed the garb of a fuqueer, allowed his hair to grow, which was long and matted; he was all covered with ashes, had little clothing on, being only covered with a new blanket. He was seated in a corner of the verandah. I addressed him by name several times, but he replied not, although he spoke to the two Bengalee attendants, as he recognised them. This was satisfactory, as it showed me we had got the Simon Pure. I stayed for a length of time, tried in every way to get him into conversation, at last found out he was very partial to smoking

churrus ; sent for some, and allowed him to inhale them to his heart's content. Whilst enjoying his smoke, Goolaub and I stepped out, and had a chit-chat. Goolaub said it would be advisable to try and get him over to camp. So back I went, and addressed him in as coaxing a manner as I could. After much difficulty he spoke to me, "Sahib," he said, "why are you persecuting me." I denied all such intention, said I was interested in him, as I knew he was a Bengalee gentleman, and wished to make his acquaintance, and hear all about his travels, &c. To my surprise, up he jumped, shook hands, while he said, "All right, I will accompany you over to your camp and have a long talk." This was just what I wanted. I found he could speak English, as he had been educated at some college in Calcutta. Then we walked to camp, sat in two chairs and had a long and interesting chat ; asked him why he had left his home, &c., and if he would not return with me, instead of wandering about in such discomfort in the jungles. What subsequently took place will be related in another chapter.

IN THE DAYS OF AKBAR—(Continued.)

(BY LASSIE.)

CHAPTER VII.



THE warm, sunny, autumn days pass pleasantly along. Akbar visits his promised bride once or twice. He presents her with a splendid betrothal necklet of fine sparkling diamonds and emeralds, besides other fine jewels, and splendid soft, rich, silken brocades for her dainty limbs, such as Mary in her simple life has never seen before. Every time Akbar sees her, he becomes more and more enamoured of the fair-haired, white-skinned, gentle girl, with her shy sky-blue eyes and rosy lips, as different as can be from tall, stately Dewal, with her rich brown complexion, soft, black locks, and large languishing, yet passionate, dark eyes.

Mary, on her part, soon gets a liking and interest for the handsome dark-eyed Mogul, who speaks to her with such courteous gentleness, and in whose dark eyes she reads his passionate fondness for herself, though restrained from expression by Eastern modes of thought.

Only once—the day before the marriage—does Akbar let his feelings find expression, then, as he and Mary stand alone together looking at his last costly presents, he clasps his arms round the slender, white-robed figure, and looking down at her sunny head, exclaims in the glowing and poetical language of the East: “Fair bird of the West, who art about to nestle in my heart, and brighten my home, thou shalt find thy nest a soft one, hung around with my love and devotion. Thou shalt not miss the open air in thy golden cage, for I shall so love thee and cherish thee, my fair-haired bride, that thou shalt forget ought else. Thy people shall be my people, and thy God my God.”

The tears start to Mary's eyes as he makes this quotation. It is a sign to her that he remembers both his promise and also the serious conversations they have together. Without loosening herself from his clinging arms, she raises her dewy blue eyes to his face and whispers back: “Thank you, my husband. Thou hast comforted and strengthened my heart.” She puts her head against his breast, and then, though he is the Great Mogul and an Eastern despot, Akbar, being also only a man, bends his stately head and tenderly kisses the soft, fair cheek of the English girl.

The marriage is celebrated with great pomp the next day. First, according to the forms of the Christian Church, in the marble hall

of Ross's house, and then according to Mahomedan forms in the stately Jumna Musjid.

Crowds of people throng the streets and look down from house-tops to witness the stately show, and try to get one glimpse of the Emperor's Western wife, ere she vanishes forever behind the well-guarded harem doors. First marches Ross and the household guard in splendid military order. Behind them are richly caparisoned, led horses, arching their necks and stepping proudly out. Then come richly-clad footmen bearing banners, flags and streamers of other sorts. Behind them come the court musicians playing loudly on trumpets, drums, atabals and other musical instruments. Then a stately elephant, in whose gilded howdah sits the Emperor, splendidly clad in rich cloth of gold ; with him are little Prince Selim and Abul Fazil, also richly dressed. Behind him is a low litter, with a framework of gold, hung with pink silk curtains, and borne on the shoulders of four richly-dressed Negro mutes, and surrounded by the terrible guard of Calmuk women. Just following it is a group of Roman Catholic priests, bearing a cross aloft and chanting psalms. These men, with their flowing black robes, tonsured heads, and bare feet, form a strange contrast to the richly dressed, dark-skinned people who throng around and watch them with great curiosity.

After the priests comes a great number of elephants bearing the *Umaras* of the Court, and a body of Native Lancers closes in the procession.

The people shout as the gay procession winds slowly along towards the Palace, and one dark-eyed, handsome young chief mutters fiercely : " Ay, shout, thou cringing, beaten curs ! shout thyself hoarse over the great Akbar and his new bride ! 'Twas thus ye shouted when the great Rajput's daughter came to Akbar's harem ; and thus thou wilt shout when—" At this instant a light touch falls on the young man's arm, and looking down he sees a withered old woman clad in bright green, the sign of Mahomedan mourning.

" Nuttea," he exclaims, " Thou art daring to brave Akbar's wrath in that robe on this day ? " " Ay, truly my son," the woman replies : " Is it not a day of mourning for us ? But I touched thee to warn thee not to speak thy thoughts aloud."

" Do I fear him ? " demands Bharata, proudly. Then with an expression of anxiety he asks : " But mother tell me of poor Dewal. What is she doing on this festive and happy day ? "

" Alas my son ! " says the old woman sorrowfully, " she kneels at her window weeping. Sometimes she prays for blessings to fall on Akbar and the Feringhee : then she curses, then again with fresh tears recalls her curses and prays Akbar may be blessed. Then she starts up and walks about wringing her hands and lamenting her fate. Alas, my bird, how low hast thy head sunk ! " The woman stoops and wipes her eyes in her chuddar.

" Her head has sunk, but it will rise again," Bharata says. " Oh mother, thou canst read the future, tell me will it not rise again, or wilt this Feringhee trample our pride, the pride of the Rana of Chittore, in the dust ? " He speaks very pleadingly and earnestly. " Our pride will surely rise again," says the old woman. " Doubt it not, my son." There is a pause between them, broken by the booming of guns, and a loud, triumphant blast of trumpets.

"Hark!" says Nuttea raising her withered hand. "The procession has reached the palace! Now the bride is being borne to her rooms above my poor Dewal's. I must be gone, Bharata. Fare thee well, my son, and doubt not but this cloud will lift." And the old woman slips away in the midst of the crowd.

CHAPTER VIII.

When the peal of trumpets announce that the bridal procession has reached the palace, Dewal starts from her crouching position at her window and, with a low moan of anguish, begins pacing up and down her splendid apartments, sometimes wringing her slim jewelled hands in misery, then clasping them nervously together, as she listens to the joyful strains of music ever drawing nearer, as the bride is borne to her chamber. Tears stream down her beautiful face, and her long, dark hair hangs in thick dishevelled locks below her waist.

At last a loud flourish of trumpets sounds triumphantly over head, and Dewal flings herself on her couch pressing her hands to her ears to keep out the hateful sounds, while she burst into passionate, uncontrolled weeping.

"Don't cry, Dewal Rani," whispers a soft voice near her, and with a start the poor woman raises her head.

A plump, young Mahomedan girl, clad in long, loose, yellow silk trousers, which are gathered in at her trim ankles, showing pretty, white feet with henna-dyed toe-nails and soles; a red velvet coat with white chemisette, and a little red cap on her thick hair completes the girl's toilet. This is one of Akbar's younger wives, Motee, a plump good-natured young girl.

"Don't cry, Rani," she says again. "Why should you cry? you are still one of Akbar's chief wives! he still loves you. Selim, if he is not yet Emperor, will be Nawab of Bengal."

"Don't speak to me, Motee," says Dewal, sorrowfully. "You say Akbar still loves me? Yes, but how? After a common Feringhee girl. Me! his chief wife! I was Maharani, my son was his heir. Now he has cast me off, and taken the kingdom from my son, for the sake of his Christian bride. Poor Dewal's sun has set now. Go, pay your devotions at the new sun now; leave me alone in my sorrow." She sinks back amongst her cushions as she speaks.

"Oh no, Dewal!" Motee says, gently crouching beside her, and gently stroking her thick soft locks with little red-tipped fingers. "We all sorrow for you, we love you. We will never leave you, dear Dewal."

"You better not," says old Nuttea, who has just entered hurriedly. "And I tell you what it is, Motee Rani, if any of you presume because Akbar has slighted my flower, if any of you presume to treat her with less respect than you have always done, you will greatly regret it. Dost thou think my Dewal's sun has set for ever?" she continues. "No, think it not. It will rise with greater splendour, and Akbar will take her back to his heart. Presume not in her present degradation—or presume—if you dare," she adds fiercely. "Oh no, Nuttea," Motee says, shrinking from the savage old woman, of whom she stands in great fear. "Come, my bird," continues the old woman, very tenderly stooping over Dewal's drooping figure. Akbar has left his new bride alone, whilst he attends durbar. Wouldst thou see thy rival?"

"Oh yes! yes!" Dewal says, eagerly starting up. Nuttea looks sadly into her tear-stained face, and leads the way, while Motee starts up and follows with eager curiosity to see Akbar's new wife.

Left to herself, worn-out and bewildered by the pomp and ceremonies of the day, Mary leans against her lattice frame, and gazes over the wide-spreading palace gardens, shut in by high walls. Over the walls all she can see are the feathery tops of some palm trees, and the minarets of the Musjid where her strange marriage took place.

With a wearied sigh she turns away, and then gives a stifled scream of surprise and alarm, as her eyes fall on three female figures; one close beside her, the others nearer the door, but all intently watching her; especially the one near her, whose large, soft eyes are fixed on her face.

"Who are you?" Mary asks gently.

"So you are the woman who stole my beloved's heart from me? You are the woman who has taken my place and broken my heart," says the woman in wailing tones. "You look so calm and gentle, how *could* you be so cruel to me?"

"Who *are* you?" asks Mary again. "And how have I broken your heart?" She puts her soft white hand on the woman's dark bare arms, but she shrinks away. "Nay, touch me not," she says; "I am Dewal. Till he saw you, Akbar loved me. I was his chief queen, I was the Maharani, my son was his heir. Now all is changed. He loves you—you are Maharani, and your son will be his heir. Poor Dewal is cast aside! Oh, why did you marry him—why did you not stop in your own country and marry one of your own Princes? Why did you come here to steal my Akbar's heart and break mine?"

"My poor Dewal," Mary says compassionately, "I am very, very sorry for you; but what can I do? I did not know anything about you. Besides I had a command from heaven to marry Akbar. But I am very sorry for you?"

"Are you?" asks Dewal eagerly, and she clasps Mary's hand in hers, and looks with her dark eager eyes into Mary's blue ones. "Are you sorry? Then tell Akbar you won't be Maharani, but one of his lesser wives. Tell him my son must be his heir, that he must love me best, and not become a Christian. Tell him this Christian girl, and Dewal will love thee as a sister."

Mary's face flushes, and she looks at the handsome woman with her eager tear-stained face for a moment before she answers.

"Oh Dewal, I cannot do *that*. I married Akbar because I was the instrument chosen by Heaven to make him a Christian. I must be Maharani, because, if I have a son, he must inherit the throne to keep the country a Christian one. But I will love you; and I am very sorry for you, dear Dewal." "Words are easy," sighs Dewal with quivering lips, and a bitterly disappointed expression. "Yes, words are easy," repeats Nuttea coming up and gathering Dewal's garments about her. "Thy words are sweet and soft, but they mean nothing," she adds, turning to Mary. "You talk easily, but hold your own firmly, and break this poor, fond heart. Thinkest thou, Christian girl, thy heirs will ever sit on Akbar's throne, whilst Dewal's son liveth? Thinkest thou thy influence wilt convert us *or* even Akbar? As thou hast caused Dewal to be slighted and cast aside, so shalt thou be ere long."

"Who is this terrible woman?" Mary asks in alarm, but the others only move away further off.

"Dog of a Christian!" exclaims Nuttea fiercely, grasping her white arms, and savagely shaking the slender figure about. Mary screams in terror, and two fierce Calmuk women burst in. They draw Nuttea off rudely, and lead her and the two other women out of the room. Mary sinks down trembling and bewildered near her couch, covering her face with her hands and trying to seek comfort and safety in prayer.

CHAPTER IX.

There is great rejoicing in Goa when the news arrives there that the Grand Mogul has married a Christian girl. Thanksgiving services and celebrations of High Mass are held in the Catholic Cathedral, and every Christian in India prays devoutly and sincerely that this marriage may lead to the conversion and baptism of the whole Mogul Empire.

Still greater is the rejoicing when the news spreads that Akbar has sent for some priests to explain their religion to him, and that he also wants some expert carpenters to build a chapel in the palace grounds for the use of his wife.

Every priest in Goa prays humbly and honestly that he might be the instrument chosen by heaven to baptise the entire Mahomedan nation.

At last three priests are chosen and set out on their journey amid the prayers and blessings of all the rest, who wait in burning expectation to hear the result of their mission. Akbar receives the humble priests with great deference and courtesy.

He assigns them rooms in the palace, and attends service there in company with Mary and Ross.

When the priests make him presents of a richly engraved crucifix and some ivory images of saints, Akbar kisses them with great reverence, though in the eyes of orthodox Mahomedans these images are regarded as idols.

But still, though Akbar listens to their discourses with great respect and attention, and though he regularly attends mass with his wife, still he hesitates about getting baptised and announcing himself a Christian. Mary begs and coaxes him to do so, but Akbar very gently and tenderly tells her he must wait till he is sure of himself; but every day he seems more and more inclined to join the Christian Church.

Of course this attitude of the Emperor's towards the hitherto despised Christians has great effect on his *Umaras*. Many of them profess themselves willing to be baptised with the Emperor. The little room the priests use as their chapel, becomes crowded with a large congregation of Mahomedan and Rajput nobles, some to hear the words of life from the lips of the thin, worn men who speak with fervour of their religion—but many of the younger members to gaze with curiosity at the slender, girlish figure seated beside their Emperor. Of course they cannot see her face as she is always veiled by a thick gauze veil falling around her figure from under a light golden crown, but her ruddy hair shines through the veil, and that, combined with the fact that *she* is the real cause of all this change is quite enough to draw large crowds. Christianity becomes quite a fashion in Delhi at this time.

Akbar sends a younger son of his, Murad, son of the youthful Motee, a fine boy of five or six, to be educated as a Christian in the Catholic College at Goa, and of course this example is largely followed by his *Umaras*.

In the midst of these hopeful signs, Akbar announces that he is going to take his bride on a procession through his dominions, and desires his camp equipage to be made ready.

When Akbar starts from Delhi it is with great pomp and show.

He mounts a spirited Arab steed, and surrounded by all his nobles gallops off.

Behind come led horses and elephants, following them come the ladies of the zenana in palanquins, surrounded by their fierce Calmuk guard.

The procession moves forward towards the tented pavilions which have been sent on in advance. These pavilions are pitched on the plan of the Imperial Palace at Delhi, surrounded by a high wall of canvas, painted a bright Imperial red.

In slow and stately march the vast assemblage moves on ; sometimes stopping for a week at some city, and sometimes camping out in the open country where Akbar and his nobles enjoy the pleasure of hunting and shooting. At last after a long tour extending over four months the Court returns to Delhi and settles down quietly to endure, as best it can, the trying months of the burning hot weather.

(To be concluded in our next.)

“FOR LOVE, FOR LIFE!”

A THRILLING ADVENTURE.



WAS evening. The last rays of the setting sun shone forth, and lit with a lurid glare the darkening sky. Huge masses of sombre clouds floated idly over the horizon, obscuring every now and then the fitful gleams of the rapidly-setting sun.

The birds flew twittering to their cozy nests, and the familiar *carw-carws* of the ubiquitous crow, sounded strangely at variance with the marked stillness that gradually fell around.

The tall, gaunt trees threw a ghastly shadow on the green sward, and, as the moments grew on, seemed to vanish into the shades of the rapidly-approaching night. The fading twilight had quickly deepened into dusk, and a pitchy darkness now overspread the vast expanse of sky.

A silence as still as death crept over the inky face of nature. Not a single star twinkled in the heavens above to light the weary *ryot* on his homeward journey. The sighing wind whistled through the trembling branches overhead, and sounded like the last wail of a dying infant.

Weighed down by a sense of utter helplessness, crushed in spirit and sick at heart, I had wandered on, I knew not where, nor cared I where. All the surroundings of nature seemed to be in sympathy with my injured feelings; the sighing wind cooled my fevered brow, and seeking to hide my grief from the sight of all human curiosity, I entered the outskirts of the neighbouring thicket, and soon found myself entangled in the maze of the bordering forest. As I advanced deeper and deeper into its recesses, I felt a peculiar calmness, an almost indescribable sense of tranquillity steal over my whole being. I entered a little glade that appeared to be the abode of myriads of fireflies, and overcome by fatigue and weariness, I flung myself at the foot of a gigantic banyan tree, and began to review, with a well-nigh bursting heart, the events of the past few years. The days of my childhood seemed to float with intense reality before my fevered brain. I could distinctly see the fields and lanes of dear old Devon. How I revelled in the enjoyment of my childish glee. My years of boyhood, my school career, my parents, my friends and family, all passed in vivid succession before my gaze. My voyage to India, my landing, my present position, and last, but by no means least, the image of the one dearest to my heart, the only being that cheered and solaced my lonely life in the heart of the wilds of India.

I was a young man of barely 25 summers, and the offer of a post that seemed in every way to suit my wayward disposition had induced me to quit my native home and set sail for the shores of India—the promised land of the East. Since my arrival, my career had passed very uneventfully, until, on a transfer to one of the

wildest parts of the Central Provinces, I chanced to come across a form—my ideal of divinity on earth.

An evening-at-home at the neighbouring Collector's had enabled me to put the finishing touches to the dream and picture of my life, and that evening, as I walked home to my humble bachelor abode, I was the accepted suitor of Gladys Bensley.

To describe her loveliness of form, her beauty and her virtues, would be at best but a hopeless task. Suffice it to say, that she was to my mind the perfect embodiment of earthly goodness—

The perfect woman nobly planned,
To warn, to comfort and command.

My life had been up to this, one continual sense of bliss. With the prospect of a glorious future, what vain imaginings did I not anticipate? What castles in the air did I not build, when all of a sudden my dreams of bliss were were cruelly cut short by the arrival of a telegram calling me away at once to the bedside of a dying mother. Imagine then my state of mind consequent on the receipt of such an unexpected piece of news.

I lay on dreaming thus for I don't know what length of time when I was suddenly aroused from my reverie by a terrific shriek as if from a female in distress. I started up in alarm, and man though I was, a peculiar creeping sensation passed over my body. I was alone and unarmed in one of the wildest haunts of the religious fanatics of the East; and a stranger, in the dark, I knew not which way to turn to seek for help and succour for the one who seemed to be in need of assistance.

The cry was repeated, and this time in a more prolonged and shriller tone. My startled courage and manliness re-asserted itself, and without waiting another instant I started off for the direction from which the sound appeared to proceed. My progress was but slow, as I had to literally feel my way in the pitchy darkness. My clothes were nearly falling off my back, cut and torn by the thorns and brambles on my path; my hands were lacerated and bleeding profusely, and my whole face was covered with big beads of perspiration. All of a sudden I knocked against what seemed to be the ruins of a masonry wall. Another piercing shriek at my very ears seemed to root me to the spot. My blood curdled within my veins, and I thought I could hear, as if afar off, the hellish incantations of the religious maniacs that I knew dwelt in those secluded parts. I gathered up my failing courage at the repeated cries of distress, and putting out my hand I felt myself suddenly thrown forward with great force, and only saved myself from falling by clutching at some rusty chains that hung protruding from the wall. Groping about I found that I had accidentally touched on a secret spring in the doorway, and had thus of a sudden been precipitated into a long, narrow passage, which seemed to lead to only darkness and mystery.

The building appeared to be a ruined Hindu temple, and as I advanced cautiously, feeling my way in the dark, I but dimly realized the terrible danger I had unwittingly placed myself in. Here I was, alone and unarmed, intruding into one of the most sacred haunts of fiends who consider the killing of one Feringhee sufficient to ensure eternal bliss in the life to come. Another awful shriek reached my ears, and turning a bend in the passage I perceived at its extremity a sight that made my very hair stand on end. Good God! there, at the end of the passage I beheld, surrounded by female maniacs,

semi-nude and with lighted torches in their hands, the being I loved best on earth—my Gladys, stripped and tied to a stake, the lamb waiting to be slaughtered.

With one terrific bound I leaped forward ; but my feet had hardly touched the floor when I heard a peculiar grating sound and felt myself bodily descending into the very bowels of the earth. All hope of assistance was now at an end. I had trod on a trapdoor, and was descending now, to Heaven alone knew, where, while the continuous and agonized shrieks of my beloved one simply maddened my already tortured brain. The descent was extremely rapid. Darkness, as black a night enveloped everything ; and as with a heavy thud the wooden trapdoor struck the floor, a hundred gaunt and bony figures, with one demoniacal yell, fell upon my helpless form : my brain reeled, and with a smothered cry of anguish I fell senseless to the ground.

When I awoke, I found myself alone, bound hand and foot, a prisoner in an underground prison. The figures that had surrounded me had disappeared, and I took a hasty survey of my strange surroundings.

I was in a huge cave of solid rock with carvings of strange figures all over the rugged surface. Long stalactites hung in most fantastic shapes from the roof. The whole place was lit up with a lurid glare by a huge fire of burning logs in the centre over which was an immense cauldron of boiling pitch. Dense black smoke was issuing from the vessel, and the fuming and fizzing of the inky liquid was the only sound that disturbed the stillness of the place. Opposite the cauldron and myself was a massive chair carved out of rock with a canopy of the same substance overhanging it. The arms of the chair represented two couchant lions with faces resembling something between a demon and a griffin, and their tails curved up to a tremendous height, and formed the main support of the canopy.

My awful surroundings filled my mind with a vague terror. My diseased fancy conjured up the most horrible representations. I fancied I saw innumerable demons prancing and shouting around me in their devilish glee, while their leader, seated in his chair of state, regulated their actions and watched my most minute movements. Then I thought I saw myself mercilessly thrown into the boiling pitch, while my torturers laughed and chattered glibly over my awful fate. My brain grew dizzy, my senses reeled, and I thought I would go off into another swoon. Presently my attention was attracted by a low rumbling noise proceeding from a corridor on my left. I bent forward to look ; it was dark. The noise, however, gradually increased, and I then heard in the distance a weird, hellish chant and the clang of approaching footsteps on the stony floor. I felt certain that my last hour had come. Those now approaching were to be my executioners and the bubbling and fizzing cauldron my instrument of torture. My mind suddenly recalled the circumstances that had brought me into this predicament. Where was now my Gladys, my darling, to save whom I was now a prisoner in the bowels of the earth ? Was she dead ? Death surely would be a kinder fate than that I was then suffering.

The noise in the corridor became more and more defined. The chant now sounded distinctly in my ears, and as it slowly drew near, I beheld a sight,—a sight, stranger than all the strange things I had up

to that moment witnessed. Headed by a tall, bony and hideous-looking fanatic came a long procession of figures both male and female in a state nearly bordering on nudity. They bore huge flaming torches in their hands. The faces of the men were haggard and unkempt, and long tangled masses of hair fell thickly over their neck and shoulders. Their expression was almost fiendish. Their eyeballs, red-hot, like balls of gleaming fire, rolled in their sunken sockets. The women—merciful Heavens!—were they beings of this earth, or products of the lowest depths of hell? Their faces were unlike anything I had yet set eyes on. Their long hair, like the men's, thick, tangled and in streaming masses, was their only covering. Their limbs were frightfully distorted, and covered with earth and paint of all imaginable colours.

I crept closer into a corner. They entered the cave. The dense smoke from their torches filled every creek and crevice. They perceived me, but to my utter astonishment, seemed not to take the slightest notice of my presence. Their chant ceased. The leader took his seat in the carved chair. A gong on his right gave forth a hideous hollow sound, and instantly, all in the cave bent down to the ground in silent worship and adoration. I was thunderstruck. I could not, for the life of me, understand why they had not, as I expected, pounced upon me and cast me into the boiling cauldron.

Presently a peculiar grating sound fell on my ears. I had barely time to look in its direction, when, with a horrid yell, the whole band jumped up from their bending posture. A heavy block of wood, the same trap-door by which I had descended, thumped heavily on the ground, and with a fearful howl they sprang upon another helpless victim and dragged it forcibly towards the cauldron. Shrieks, piercing shrieks, now filled the air. I strained every nerve and muscle to catch sight of the victim. The smoke suddenly cleared, the light from a gleaming torch fell upon the upturned face, and I recognized—great God!—my Gladys, my darling, being dragged to her doom. She saw me, and implored me to save her. I tried to speak—I was dumb. My parched lips would give forth no sound; my tongue cleaved to my palate. I tried to free myself; the fiends saw me, and rushed in my direction. There was no time to think; I was mad, desperate. With one mighty effort I burst my bonds and with a terrific leap sprang forward to save my darling. I missed my object and—horror!—I alighted with tremendous force in the centre of the boiling cauldron. I gave a frightful scream as the scalding liquid splashed forth and—great Jove! where was I? The scene had suddenly changed. Did I not at this moment jump into a cauldron of boiling pitch? I opened my eyes, I looked around, great drops of perspiration were trickling down my face, the sunlight gently streamed into my room, and I found myself sweetly reposing on the floor, bed-clothes in hand, the laughing stock of my bearer and his satellites.

I could hardly understand. Was I not the moment before a prisoner in the bowels of the earth? And my Gladys? I looked around once more, stupefied, and then dimly began to realize that it had been all a dream—an awful dream. My Gladys was no doubt now peacefully happy far away, and I—well—was smilingly reminded of my incongruous position by a low, salaaming individual with—*"Huzoor, chota hazri tyar hai."* Ah! gentle reader, beware of an excessive supper of lobster-salad.



EDITOR'S EASY CHAIR.

THE CLASS OF PEOPLE OUT OF EMPLOYMENT.

following few lines are of marked application in this country, and convey a lesson that many would do well to lay to heart. They are the views of a gentleman of experience concerning those out of employment:—"I seldom find," he says, "anybody out of work except those who are looking for something that they are incompetent to perform. A man who is able to adapt himself to circumstances, and takes any job which offers, is never out of employment, and it is only for a short time at most that he is obliged to do anything that is really beneath his ability. As soon as he demonstrates to his employer his fitness for a higher position, he is sure to be promoted. Those who aspire to something above their ability, however, are very numerous. Many of these are actually ignorant of the fact that they are unqualified for the kind of work they are seeking. It would be a mercy to many such men if some one would tell them kindly that their search is in vain, because other men are better qualified to perform the duty they aspire to than themselves, and will therefore be preferred. There is many a man who would make an excellent porter that fritters away his life as a lame excuse for a book-keeper."

An illustration of a man seeking something to do for which he is utterly unqualified was recently told in one of the daily papers in the following language: A farmer, not less than 65, entered the office of a cotton mill the other day and asked the genial agent for a job at book-keeping. He said he'd farmed it from a boy up, and that he had decided to try something easier the rest of his days. He said, too, that he had not been educated in keeping books, but he was confident he could do it. The agent who tells of the incident says he heard the old gentleman's story and kindly told him that he saw no vacancy then, but that he "would remember him." Probably, however, he forgot all about him.

There is an awful lot of people trotting around in this country who would do well to take the advice given above to heart. Occasionally, some of them—if they happen to be of the white persuasion, are "Shanghaied,"—or as it is diplomatically called "shipped as ordinary seamen," on board any vessel that happens to want the legal compliment of her crew made up—and very 'ordinary' stuff they, as a rule, make. The *Indian Daily News*, recently mentioned a case in which ten loafers of the description referred to were shipped in a British vessel, sailing from this port. We can only hope that the report was not true, or that, if the men were shipped at all, they

went as extra hands. Some firms, we know, would resort to any dodge to keep down their expenses, but few firms would, knowingly, risk their ships—by having an incompetent and under-manned crew—unless they had purposely laid themselves out for a 'loss,' and had previously assured themselves to the extent to cover the loss and provide a decent interest on the few months that would have to elapse before they 'realized.'

We have personal knowledge that such instances are of not uncommon occurrence. We can only hope that the case alluded to, if true, is not one of them. Ten Calcutta loafers—who would, under ordinary calculations, form about $33\frac{1}{3}$ per cent. of the strength of the whole crew of a 2,000 tons (registered) vessel would probably form a lively element in the Bay of Bengal—when 'weather' was expected. Judging from the class of loafer we have occasionally come across, every man of the gang would require the end of the rope upon which he was required to haul brought into his bunk. If he had a Commander who appreciated his business, he would probably get the end of the rope given him,—but it would be on a portion of his person not previously anticipated. For men out of work, owing to no fault of their own, also for those who, perhaps, have a grievance (real or supposed) and throw themselves out of a job, we have every sympathy. Unfortunately, however, in this country it is not every white man who entertains this feeling towards his brother white man. But for loafers, pure and simple, we have no consideration. The *Indian Daily News* makes capital out of the fact that a man connected with our local "Sailors' Home" had been instrumental in shipping these incompetent men as part of a crew (kept down, we presume, so far as numbers are concerned, to strict limits) destined to work a vessel home. We know something about this indiscriminate shipping of men, regardless as to whether they are, or are not, competent for their duties. Once, while we were serving our apprenticeship in a big home firm, owing to scarcity of men we had to ship from Hamburg anything we could get. We got a crew, certainly, and got all our papers signed and our custom clearance. We were bound across from Hamburg to Shields—fortunately we had not far to go, for the six apprentices, the captain and the chief and second officers—the writer of this note was, as senior apprentice acting as third officer—with occasional help from the cook, the steward, the carpenter and the sailmaker, worked the ship across the North Sea in the dead of winter. It took us some days to get across, and as we had to handle every stitch of canvas ourselves, keep watch (day and night, as we came across in a dense fog), take our 'trick' at the wheel, and, in addition, to be responsible that the 20 drunken men of every nationality who were kicking up old Harry in the fore-castle neither starved nor got loose, our readers may, perhaps, form some idea of what it meant.

THE CALCUTTA NAVAL ANNUAL.



It is certainly not without good reason that the Calcutta Naval Volunteers have been congratulated, time and again, upon the spirit of 'go' that distinguishes the Corps. The recently-started Athletic Club contains, within itself, all the elements of success, and a glance through the bye-laws of the Club, just issued, convinces us that the management of affairs is in the hands of those who

are likely to let not opportunity pass for forwarding the interests of the Club. But we would here chiefly speak of the ambitious literary venture published in connexion with the Corps, the second issue of which is before us as we write. The *Calcutta Naval Annual*, 1891-92, is in every respect, save one, an immense improvement upon its predecessor, the detail in which it fails to compare favorably being in the design of the cover. The illustrations in the current issue are excellent throughout, most notably the photogrammes which were done on the Continent from photographs taken by Messrs. F. Kapp & Co. The first article is, appropriately, upon "The Corps," and is from the pen of Captain Petley, the Commander of the Battery, who has done so much to forward its interests. To those interested in the doings of the Battery this article will prove of value. It is written in a lively vein, and while it gives the officers and men due appreciation for their efforts to do credit to the Corps, it does not err too much in the direction of undiluted 'butter.' We think that it is a very fair and accurate description of what the men have accomplished during the past season.

It is, of course, hardly to be expected that Captain Petley should lose the chance afforded him by the publication of the *Annual* of once again impressing upon the Government of India the urgent necessity of providing material for the Naval Volunteers to work with. He points out that with regard to the possession of a properly-equipped vessel the Navals stand to-day in exactly the same position as they did at this time last year. As for the engineering branch of the Corps, Captain Petley remarks: "At present we have a Chief Engineer and six first class engineers to work our old 'Leopard.' It really is laughable when one comes to think of it; or rather it would be laughable did it not show so emphatically the supineness of the Government in dealing with such an important movement as volunteering."

One of the most notable articles in the *Annual* is that by Admiral Freemantle on the "Naval Defence of India." We have not space to review this paper in detail, but the gist of it is, we think, that while Admiral Freemantle does not advocate the revival of the Indian Navy, he would work the local mobile defences directly by officers and men of the Royal Navy assisted by Indian Marine Officers specially qualified, and a proportion of lascars. He would have some batteries to defend important centres, and would not trust to any great extent to submarine mines, except as a defence for repairing-yards and coaling-stations. But above all the writer would rest the defence of India's seaboard, and even of her northern frontier, primarily on the strength and power of the Imperial Navy (the Mediterranean and Channel fleets) with a second or inner line of defence, mainly local in character, and of sufficient strength to chase away or capture any enemy's cruisers which might endeavour to establish themselves in the Bay of Bengal or the Arabian Sea on our important trade routes, the rule being that any concentration of hostile vessels in Eastern seas should always be able to be overpowered by a British force.

Among other readable papers is one on the "Maritime Defence of the British Empire," and another on "National Flags." The former is by Flag-Lieutenant Tupper of H. M. S. *Boadicea*, and to those fond of going into details it will prove of far greater interest

than the paper contributed by the Admiral on somewhat similar lines. The latter, while it displays considerable erudition, is more general in its treatment, while the article by Lieutenant Tupper grapples boldly with some of the most intricate and vexed questions of the day, in a manner calculated to make the hair of senior officers stand on end. But it is a good solid paper, every word being marked with sound sense and judgment that lead us to the conclusion that the world has not yet heard the last of Lieutenant Tupper. Of course in a brief notice such as the present, it is impossible to more than glance at a few of the leading features of the paper in question. In fact, elaborate as the article is, it is itself more suggestive than convincing, and Lieutenant Tupper modestly disclaims any more for his "few ideas" than that they may induce discussion, and elicit more valuable opinions. We do not look, in India, for much discussion on the subject, although every paragraph contains sufficient suggestive material, properly handled, to make half a dozen leading articles. But as the paper has, so far as we know, failed to elicit a word either of praise or condemnation from any journal in India, we will charitably conclude, not that its value has been under-estimated, but that it has escaped attention.

The ground covered by Lieutenant Tupper is a very wide one, including as it does defence of the high seas, channels, trade routes and the seas and channels that wash the shores of Greater Britain and the coaling stations; coast defence (home) coast defence (colonial) and the defence of coast lines at home and in the colonies by a system of lookouts, telegraph and telephone. The writer next tackles the very big question of the value of our imports and exports, which he gives under the heads of the principal countries with which we have commercial dealings, and the means that should be adopted to render secure, by means of our fleet, in war time, the trade routes of the world. He goes into the matter of distribution of the various vessels, and the principles that should guide that distribution. He maintains that a close and effective blockade of a modern harbour is impossible, that convoys are impracticable, that fast squadrons of observation should take the place of the "weather gauge" of by-gone days and should supersede squadrons of blockade, and he advocates that England should, in time of trouble, boldly take the initiative, and, by sinking a vessel in the Suez Canal at the offset, effectually solve the question: "Is the Suez Canal likely to become a source of embarrassment in time of war?" We have glanced at but a very small proportion of the subjects and their corollaries, with which the paper deals, but we have said enough to show that the article is a remarkable one, the subjects cleverly handled; and if the writer has not treated his topics with any great amount of thoroughness, it is evident that the seeming superficiality is not owing to want of knowledge, but to want of space.



TOPICS OF THE MONTH.

THE MONTH JUST DRAWING TO A CLOSE HAS been an eventful one, although with the exception of the fighting that is going on in Chili, and the efforts that are being made by France to render her position more secure with regard to the European Powers, nothing of very stirring importance has taken place. In India the month has been prolific of incident, and what with the descent of the curtain upon the closing scenes of the Manipore tragedy, and the determination on the part of the Government to deal with the seditious portion of the native press with a firm hand, there has been plenty of material ready to the hand of the native journalist with which to pad out his columns and embellish his pro-fervid protestations of ultra-loyalty.

ON THE 6TH AUGUST PARLIAMENT WAS PROROGUED, THE Queen's Speech on the occasion being, as usual, read by the Lord Chancellor. There is a sameness and a tameness about these formal speeches which leaves as a rule, nothing whatever to comment upon in them, and the present specimen is no exception to the general rule. "My relations with all other Powers continue friendly," that is a stock phrase, and no matter how severe a strain there may be existing between Great Britain and other countries regarding questions of international policy, so long as actual war is not declared, her relations are "friendly." In the present speech a few of these little international complications are glanced at. First in order comes the Portuguese Convention, defining the boundaries which separate the dominions and the spheres of influence of England and Portugal in Eastern Africa. With regard to this point it is doubtful if map revision has ever been conducted on such a colossal scale as is now going on in the partition of Africa. That Great Britain has, hitherto, managed to keep clear of any very serious complications speaks well for the forbearance exercised by all parties to the present scramble, Portugal having hitherto been the only disturbing element. When we glance at what has been done, this accord amongst the Power is very striking. The European Powers have suddenly awakened to a recognition of the fact that here lay a great continent, rich in its magnificent resources, ready to be possessed by whoever came first and claimed it. The mere establishment of African colonies was nothing new. As far back as 1652 the Dutch settled Cape Colony, and the English took possession of it three-quarters of a century ago. Algeria became a French colony 60 years ago; the Portuguese

have had stations on the east and west coasts for a century or more, and both Germany and Italy have been slowly accumulating territory for years. But it is only during the past two years that the division of the great continent between the European Powers has been marked. The doctrine put forth by Germany that possession of the coast gave claim to contiguous territory inland to an indefinite extent has been generally accepted by the Powers as a basis for the work of delimitation. Germany thus secured a tract extending back of her coast near Zanzibar to the eastern boundary of the Congo Free State. Portuguese possessions have been limited to a comparatively narrow strip with a long coast line reaching from the German boundary to the British Cape possessions. France has been given undisputed sway over the vast region bounded by the Mediterranean, the Atlantic and the Upper Niger, and extending eastward to Tripoli. Italy has been confirmed in her claims to Abyssinia, and Belgium has been given authority to annex the Congo Free State after a term of years, if she so desires, upon certain conditions. So that we think it may fairly be said that, considering the conflicting interests at work, the partition of the Dark Continent has been carried on as favorably and as amicably as was possible under the circumstances.

AMONG OTHER POINTS TOUCHED UPON IN THE QUEEN'S SPEECH are the Newfoundland and Behring Sea disputes, now under arbitration; the Brussels conference for the repression of the slave trade (postponed) and Ireland; the last named occupying, of course, by far the lion's share of attention. It is pointed out that the various measures adopted in recent years for securing the observance of the law in Ireland, and improving the general condition of that country, have resulted in a marked abatement of agrarian offences, and a considerable advance in prosperity. Famine has been averted, and it is hoped that the measures passed for dealing permanently with the congested districts of the country will, by fostering agriculture and stimulating the fishing industry, contribute largely to the prevention of similar dangers in the future.

THE PEACEFUL TONE OF THE SPEECH CONTRASTS SOMEWHAT with the warlike tendencies recently attributed to the Administration at Washington. According to a recent programme, said to represent the "Foreign policy of the United States Administration," the said policy embraced a conflict with Germany, Portugal and England, a dispute with foreign bondholders by an interference in Chilean affairs, a triple alliance with France and Russia to 'down' Great Britain in the Behring Sea and Newfoundland, as well as other startling matter. Needless to say this energetic programme caused very little stir in European diplomatic circles, and Mr. Blaine was not slow to give assurances that the line thus marked out for the President of the United States was "all rot."

THE RUMOURED OCCUPATION OF LUANG PHIRABANG BY THE French naturally awakened strong feeling in Siam. It was thought in that country that Siamese autonomy was dear to England, who would strenuously resist any attempt on the part of France to encroach on the valley of Me-Kong. But the comments of the English press upon the rumoured occupation have dispelled this

illusion. It is true that it is denied at home that France has encroached upon Siamese territory, and even in the Straits' papers we fail to find any confirmation of the report that she has done so; but it is scarcely likely that France can remain content with the few miles of coast-line along the Gulf of Tonquin, which is all she at present holds. France is evidently determined, according to the generally received idea in Siam, that the Me-Kong shall be a free river for the commerce which she hopes to divert through that channel, and for this purpose she requires the Laos States. From the time that France occupied Tonquin it has been clear that we were within a measurable distance of the extension of her dominion northward to the Upper Me-Kong and westward to the same river; Siam, on the other hand, has been accused of pushing her claims to territory to which she has not the least right. It is said that she would long ago have pushed her outposts to the Black and Red Rivers if she had not been vigorously opposed, but this is so opposed to facts that it carries its own refutation. What, we may ask, has Siam to gain by overrunning districts about which there is at present such keen controversy, and which go by the name of the Siamese Soudan. But whatever turn matters may take in the further East it is not likely, we think, that France has anything to apprehend from English interference. In England neither the "buffer state" nor the "neutral zone" theories find any favor, and if the Siamese policy is to play off the jealousies of the two powerful European countries on her borders against each other, the attempt is bound to be a failure, for both England and France recognize the fact that there would be far greater danger to the peace of both nations with a small kingdom between them with its shifty native administration, than if their respective frontiers ran along the banks of the same river or range of hills.

THE ATTEMPT NOW BEING MADE BY THE RUSSIAN GOVERNMENT to drive the Jews out of the Empire is one of the most amazing events of the epoch. It seems scarcely possible that in this era of civilization and enlightenment there could be a basis for such action. Mr. Gladstone's suggestion that a carefully-prepared statement of the facts regarding the exceptional laws bearing upon the Jews in Russia, and the total absence of reason for such laws should be given to the world, comes most à propos. If Mr. Gladstone's suggestion had been carried out, and if facts heretofore reported regarding the treatment of the Jews were proven, it would call forth such a united protest from the civilized world outside of Russia that the persecution would be discontinued, or its severity largely abated. And putting all prejudice on one side there is this much to be said, that no single people is so much deserving of the regard of the civilized world as the Jews. Who can point to any great intellectual movement in which Jews have not participated to a very large extent? That mysterious Russian diplomacy which alarms Western Europe was organized and carried on by Jews. The same people almost monopolize the professorial chairs in Germany. Weander, the founder of Spiritual Christianity and Regius Professor of Divinity in the University of Berlin, is a Jew. Wehe, the Arabic Professor of Heidelberg, is a Jew. The Russian Minister of Finance, Count Caucrué, is the son of a Jew. The

Spanish Minister, Senor Mendizabel, is a son of Nuono Christiano, a Jew of Aragon. The President of the French Council was a Jew. The most famous French Marechal, Massena, was a Jew. The Prussian Minister, Count Arnim was a Jew. Europe owes to the Jews the best part of its laws, a large portion of its literature, and all its religion. Musical Europe owes much to the Jews. There is not a company of singers of note that is not crowded with Jews. The three great creative minds, to which all nations yield, Rossini, Meyerbeer, and Mendelssohn are of the Hebrew race. So it will be seen that the world at large owes to the Jews a debt of gratitude not easily to be repaid. Were this more fully and generally known, we feel assured that an indignant and united protest on the part of Europe at large would bring the Russian Bear to his bearings, and teach him that the laws of international hospitality could not be violated without just cause, and with impunity.

APEX.

CALCUTTA, 29th August 1891.

THE INDIAN EMPIRE.

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NATIVES OF INDIA IN JUDICIAL CAPACITIES.



s the Native Magistrate, or Judge, a success or a failure? This question will be answered differently by different people. Some will say that he is a decided success; others that he is only a qualified success; while others again will aver that he is a positive failure.

The question, however, cannot be answered off-hand: it requires careful and patient investigation of the events that go to make up the experiences of the past and the present; and, besides, an absolute freedom from bias on the part of the person called upon to decide the point. Of course it would be the opinions only of intelligent, sensible, and observant people that would be worth consideration at all; and it might be taken for granted that the owners of the different opinions, whatever their expression, would not have entertained them without due consideration beforehand.

But there is another factor, so liable to be ignored, which must be an essential consideration in any investigation worthy of the name, and that is a capability of just and proper appreciation of the merits and demerits of Native character. Westerns are just as apt to misjudge Easterns, as Easterns are to misunderstand them; and that cloak of reserve and independence—even pride, which Britons generally carry about with them, only makes the matter even more difficult of accomplishment in the case of Englishmen. Only a very small percentage of Englishmen, indeed, ever get a sufficient acquaintance with the Natives to understand; much less appreciate, them; and this in spite of constant intercourse with educated Natives. The Englishman has first to get used to the Native, and then, and not till then, will he begin to understand him.

It may be asked what all this has got to do with a proper estimation of the Native's capacity, or fitness, for Magisterial, or Judicial, functions. The answer is—Everything! His social laws; his manner of life; his caste customs and ingrained prejudices; his early Eastern teaching; his *very* modes of thought,—all are opposed to

English teachings, English views, and English usages; consequently, his ideas of things cannot be the same as the Englishman's. It may then be said, that he has but to carry out the established English law, and in doing so cannot err. The answer again is, that he is liable for the same reasons to under-estimate, or over-estimate, social, or moral, transgressions according to an appreciation derived from a different recognition of moral and social obligations—to put a foreign, or unintended, interpretation on enactments capable of such elasticity in their application—to follow the *letter*, rather than the *spirit*, of the English law, and thereby give it an expression never contemplated by its framers. Thus far our argument is supported by theory alone: let us now turn to *facts* to support it.

In Bengal a native jury empanelled for the trial of a most revolting case, in spite of the clear, criminating evidence adduced on the occasion, found the accused not guilty of intention to kill, or murder, though it had been established beyond all doubt that the man had *deliberately and intentionally* taken the life of an immature girl after shamefully violating her; and, as if to aggravate matters, they gave as a reason for their finding that the offender was "inflamed with lust, or passion, at the time, and therefore not responsible for his actions." Such an extraordinary verdict, opposed as it was to common sense, as well as English law, evoked, naturally, a severe comment from an English Judge who fittingly characterised their arguments as inconsistent and contradictory, and, very properly, refused to consider them. This is only *one* of those glaring cases of perverted reasoning, which occasionally attract much public attention—must there not be many more less striking ones which occur every now and then in which even Magistrates of the same race are concerned, that result in no such public exposure. One case might be referred to as a manifestly unfair committal by a Native (Parsi) Magistrate which occurred more than ten years ago: A young Eurasian Clerk in that case was convicted on a charge of trespass and theft; was imprisoned, and, afterwards, on appeal being made to the Governor of the Presidency, liberated by his orders, and besides permitted to rejoin his appointment in the Government service, and get pay for the time he was in jail. The convicted person in this case was really engaged in an amatory intrigue, and Romeo-like went to serenade a Parsi Juliet who lived in a neighbouring house, but being caught in the act, was soundly thrashed by the servants of the Parsi family, and then handed over to the Police with a carriage lamp, forcibly thrust into his hands, which he was forthwith charged with stealing. The true facts were afterwards represented to the Governor, and hence the reversal of the magisterial proceedings. Had not Native, or caste feeling, something to do with this unfortunate case? Then, again, take the recent case of the Parsi, Manockji Aslaji, who was committed to the Bombay Sessions for trial on a charge of murder in connection with the memorable "University Tower Tragedy" in which two Parsi ladies lost their lives. It is scarcely necessary to recapitulate the particulars of so fresh a case; but the question at issue demands some notice of them. A Coroner's jury of mixed nationalities found the man, Aslaji, chargeable with culpable homicide and murder, and he was accordingly arraigned for trial in the usual way. The proceedings at this preliminary enquiry were tumultuous in the extreme,

and Parsi feeling ran high: the multitude wished to vent their rage on some one, and so it fell with full force on the devoted head of Aslaji in the absence of a more convenient object, simply because he had been, at, or near (as also were others,) the fatal spot, and was unfortunate enough to incur both the dislike and suspicion of interested natives. The after prosecution was apparently forced on Government rather to satisfy the clamouring of a frantically excited community, than to vindicate the law. The most educated and highly-placed Natives (chiefly Parsis of course) were actively concerned in this unseemly manifestation which resulted in such a complete fiasco, but it was only British justice which saved the man, as the Parsis would have hanged him without even a trial, if they could. Do not the events in this case clearly demonstrate that "fair-play," that distinguishing characteristic of Englishmen, is not inherent in the Native. The foregoing instances having been cited in support of the theory sought to be advanced, little remains to be added. This article cannot however be concluded without some further remarks bearing on the question. If it has been shown that Natives (excluding exceptions of course) are not imbued with the great principles of English justice in a sufficient degree to make them the most desirable of Magistrates and Judges, it must be admitted that they are not without other qualities so essential for the efficient discharge of executive functions. They are patient and diligent, and less liable, as a rule, to hasty judgment than the strong-minded and impetuous Englishman; and it is only meet and proper that their beneficent rulers should recognise their just claims to notice as far as is feasible, or possible, that is, without harming the interests of the public at large, as, unfortunately, seems to be done by the too free and indiscriminate appointment of Natives in magisterial and judicial capacities.

T.

TYPES, TRAITS AND CURIOSITIES OF THE BRITISH ARMY.



HOUGH perhaps not so breezy and jovial a creature as his friend, Jack Tar, of the sister service, whose buoyant easy method of taking life, both ashore and afloat, has been so graphically depicted by the immortal Dibdin in many a soul-stirring ballad, Thomas Atkins is anything but a misanthrope, and is accustomed to accept the ups and downs of a military life with a jocund equanimity which, phoenix-like, rises superior to mere hardship, climate or privation.

The average British warrior is brimful of that species of humor which seeks an outlet in repartee and light badinage. Barrack-room wit is of a distinctly eclectic type; in many respects of a nature too coarse for description, but altogether of no inferior order.

The soldier's innate love of horse-play finds, at home, a very suitable butt in the latest-joined recruit, fresh from bucolic surroundings, verdant and dull of comprehension. A time-honored joke, quite hoary and moss-grown with historical antiquity, is the custom of instructing a recruit to turn out for muster parade, which occurs, or used to occur (it has only just been abolished), on the last day of every month; with a couple of canteens for the purpose of drawing the Company's mustard. An unsuspecting youngster, who frequently connects what he hears, called 'mustard parade,' with the condiment, is occasionally inveigled into the pit prepared for him, and, in the innocence of his soul, turns out on the drill square with the vessels in his hand, ready for the monthly dole of mustard.

Unusually green specimens of the genus recruit have been known to parade at the Sergeants' Mess, with a 'potato net for the squad's supply of gas.

All this kind of thing smacks of the schoolboy and his ways; for a matter-of-fact Tommy is, in many other respects, an overgrown boy, and flourishes perennially young, long after the thatch has left his head, and, verging towards his eighth lustrum, he is becoming a very old boy indeed.

When a man gets about two years' service, and, if of good character, puts up a badge, he commences to fancy himself no small potato, and is immensely fond of what they call in the army 'giving the glow' to those of his comrades who have not had the honor of soldiering for so long a period: "Why don't you get your number dry?" he will frequently remark to some lately-joined

youngster, or "Shut up and wait till you've got the service to talk to an old soldier!"

The man who has returned from a period of foreign service is generally a trifle fond of letting others know where he has been, and will frequently blow his trumpet lustily in the barrack-room, saying to a chum: "You *khabadar*? I was boiling and sweating in the far East, while you were picking up swedes and frightening the crows in Kent!"

A dear, kind, fatherly old buffer is the veteran of confirmed intemperate habits, a few of which specimens are always to be found vegetating the last few years of their service in the Regimental Depot; with the eye of a hawk, they mark out their quarry in the shape of a tender and juvenile recruit, possessive of decent civilian clothes and a little ready money; in the guise of guide, philosopher, and friend, they secure a firm hold of their pigeon and his plumage, and in the canteen or public house introduce the verdant bird to Corinthian life and character, stripping him of every feather with a hand masterly from habit and long practice.

Putting it broadly, the old soldier, like the noble red man, is 'pison whenever met.'

Every regiment possesses its chartered humorists, and many a soldier may be said literally to live on his wits, or at all events to procure beer and 'bacca—those essentially military necessities of life—by a free exercise of his happy turn for comic yarns, broad jokes, and full-flavoured buffooning.

When Private Wagg, or Private Larkin, find that their week's pay has taken unto itself wings, they see no necessity for abstaining from the convivial pleasures of the canteen, and stroll nightly into those abodes of wassail and merriment, probably without a pice in their pockets, or perchance, if they are in luck's way, with two annas for an initial pint. Joining a knot of revellers with 'plenty to go,' who receive them with open arms, they are sighted for the evening. "Give us a yarn, Billy!" is the general request, the quart pot is passed on, a pipe and tobacco furnished, and away the humorist starts with song, quip or story. Good luck to him! he has attained his object, that soldier's Zirvana—whips of 'bacca and whips of purge!

We once had the pleasure of knowing a Tommy of the Wagg and Larkin type, who, battenning on the points of his exuberant wit, passed away his days in a chronic state of drunkenness: a great stock yarn of his was a tale about a grey back (the army term for a store shirt) which got damaged in the back during a Rugby football match, and which he attempted to mend. "You see, chaps," he would begin, "I couldn't get any *kapra* to match the color of this grey back (for a patch,) so I just sewed the right arm of it across the rent and got on all *teek*, except when I had to salute an officer with the right hand, of course I had to double across to the opposite side and salute him with the left."

A very creditable feature in barrack-life is the harmony and good-fellowship universally prevalent 'twixt man and man: fighting is of comparatively rare occurrence, and, if a brace of Tommies do get into an imbroglio over their cups, they do not make a campaign of it, but, after a mutual exchange of black eyes, shake hands, the following morning as friendly as ever again.

Such a distinct advance has of late years been made in Army Education that the apotheosis of Atkins may be said to have literally set in: the interest taken in current, social and political matters by even private soldiers is astonishing when a comparison is instituted between the fighting man of to-day and the half-starved, blasphemous, drunken warrior of preceding decades.

Our worthy Atkins is also a bit of a masher, as far as the sartorial regulations relative to uniform will permit him; he has a tender regard for skin-tight trousers, a satin-bound cap and elastic-side boots; he sometimes runs into jewellery, but the size of a gold ring or chain on a private's person runs in inverse proportions to the square of his purse, and you may safely put the masher soldier down as a teetotalter, for he will have no money to spend on alcoholic refreshment.

'Give me a nation's ballads and I will give you its history' is a dictum ascribed to some literary magnate, and the musical repertoire of Tommy testifies to a wealth of sentiment seething beneath the crimson fustion of a military Kersey.

Go at any time into the canteen or pay a casual visit to an Army Temperance Concert, and you will discover that nearly all the ditties on tap refer to one's mother. "Dearest mother, how I miss you," "A boy's best friend is his mother," "Mother I've come home to die"—and so on.

Truly parental affection, if phrenologists have assigned it a bump, must be very largely developed on the cranium of gentle Tommy Atkins!

Where would a military Jack be without his Jill? the future Mrs. Atkins, presumably a maid servant or young woman from the country, smiles from a *carte-de-visite* nailed over the bed-head in the barrack-room of many a true and constant swain.

When far away on the plains of India the young fellow swelters and keeps the British flag on the *khynch*, he never forgets the girl of his heart, and, in addition to unlimited kisses, contrives to send out of his microscopic pay to his rather exijeante darling, gorgeous handkerchiefs, murderous looking knives, sublime slippers, and impracticable shawls.

A subtle analysis of the genus Atkins discloses the fact that, in no vital respects, does he differ from the rest of mankind; there is of course the drinking Tommy, the swearing Tommy, the altogether bold bad Tommy who yells 'Hang ho' in theatres and effervesces in unsuitable places; but there is also the well-conducted Tommy, the temperate Tommy, the educated, enlightened Tommy, just as in civil life all sorts and conditions of men abound.

Taking everything together, we are inclined to the opinion that there are very many inferior types of civilized society to the humble but indispensable British soldier.

OSWALD KENDAL.

A NEAPOLITAN GHOST.

[Founded on Fact.]



ON Christmas Eve in the year 1870, I found myself wandering, towards evening, in the streets of Naples in search of a lodging for the night. I had come in from Salerno by a late train, and, to my dismay, found that all the first and second class hotels were full to overflowing with visitors from all parts of the country, who had come in to witness the Christmas festivities. I therefore was obliged to have recourse to the side streets, and, after a vain search of about an hour, at last arrived at a tolerably respectable looking little *albergo* in the *Strada di Ponta*, where my application for admittance was answered by a fat, coarse, slatternly woman of that flabby, colourless complexion so common to Neapolitans of the lower orders.

At first she emphatically protested that her house was full ; that there was not space for even so much as a dog ; and I was about to turn from her inhospitable door, when a man stepped out from an inner room, and enquired whether he could do anything for me. On my repeating my request for a night's lodging, he stood for a moment in deep thought, then saying he would "see to it," retreated with the woman into an adjoining passage, where an angry altercation ensued between them, the woman gesticulating and speaking in loud shrill tones, the man answering in low mysterious whispers accompanied by contemptuous shrugs of his shoulders.

Whatever was the matter in dispute, the man seemed to get the best of it for he presently returned to me and informed me that, if I was not very particular, he could let me have a room on the fourth storey. On my assuring him that anything would do, he led the way upstairs and opened a small attic at the top of the house not over clean, and with a close, musty smell as if it had not been opened to the air for months. Being tired and hungry, I thought it best not to notice these drawbacks, but, professing myself satisfied, begged my host to lose no time in providing me with something wherewith to satisfy the cravings of my inner man.

He promptly attended to my wants, and, after having done justice to a fairly good dinner, I sallied forth to see Naples by night, accompanied by a *cicerone* who had worried me into engaging his services for a trifling remuneration.

We took our way to the *Toledo*, which, at that particular season of the year, is converted into a gigantic fair. Both sides of the street were lined with stalls and booths of every description, loaded

with all kinds of merchandize—peep-shows with the omnipresent *Pulchinella* met you at every turn, while daintily dressed girls, carrying baskets of beautiful red and white camellias, paraded the street, and crowds of men and women of every class, attired in holiday costume, passed hither and thither, laughing and talking in the high-pitched tone peculiar to Italians in general and to Neapolitans in particular. No one who has not been in Naples at Christmas time can imagine the bewildering effect of the sea of human forms that met my gaze, the Babel of human voices that fell upon my ear. Nor was it the human voice alone, but others and divers sounds lent themselves to make up that never-to-be-forgotten din—that the cracking of whips—a special accomplishment of the Italian driver—the clatter of the horse's hoofs and of the wheels of the vehicles, as they settled over the lava pavement, and, above all, the firing off of miniature guns and crackers in honour of the *Santo Bambino*—all these combined to make the *via Roma* at once the most interesting and the most distracting street I had ever been in.

After wandering up and down for a couple of hours or more, inspecting the various shops and investing in several utterly useless purchases, I began to think of retracing my steps homeward. My *cicerone*, being himself interested in the proceedings, would fain have lingered, but I, seeing that rain, which had been threatening, was already falling, was glad to turn into the *Piazza* out of which ran the narrow street leading to my hotel, which I reached only just in time to save myself from a pitiless storm of rain and sleet.

In going through the passage towards the staircase leading to my room, I passed through a kind of ante-room, where were seated, at a table, five or six men of various ages, and one middle-aged woman, engaged in a game of cards apparently for money. Even, in the small glance I gave the group in passing, I could not help noticing the eager faces of the players, and, from the high pitch of their voices, I gathered that they were quarrelling as the money passed freely from hand to hand.

My host conducted me to my room, and, on bidding me good night, cautioned me in an impressive manner not to be alarmed should I hear any unusual uproar in the streets, as, it being Christmas Eve, the inhabitants of the town were sure, unless driven home by stress of weather, to make merry till the small hours of the morning. By this time quite a storm was raging, the rain and hail dashing against the window, the wind blowing with incredible fury and giving vent to the most dismal and piteous moans, and yet, ever and anon, above all this tumult of the elements, I could still hear the jargon of the Neapolitan voices and the firing of the Christmas guns. In spite of all which, however, sleep did not tarry long, and in less than ten minutes after getting into bed I fell into a light slumber.

Presently I was awakened—by what I knew not—but I was painfully conscious that my awakening was due to some external cause. I listened—but no sound but that of the beating rain, and of the wind rattling some of the paper which hung loose on the wall, met my ear,—and I tried to compose myself again to rest. But in vain. An indefinable something forbade me to close my eyes. I sat up in the bed and listened again. This time I seemed to hear breathings and sighings in the air around me, and distinctly came the

sound of piteous human groans. These I naturally attributed to the wind, and was about to lie down again when I was startled by a sudden blast of icy air which passed over my face and bathed me in a cold, clammy perspiration. This was followed almost immediately by a strange weird sound of music, which, commencing softly, seemed gradually to swell in volume and intensity, till it burst into a loud peal which filled the room, then died slowly and softly away in one prolonged sigh. Then I seemed to hear mysterious whispering—then low laughter and strange shufflings as if of muffled footsteps.

Was I dreaming? I rubbed my eyes, and put out my hand to find my matches, intending to re-light the candle, but alas! they were not there, and I concluded that the landlord, believing them to be his own, had taken them away with him. So there was nothing left for me to do but to remain quietly as I was.

The sounds ceased for a few minutes, and I partially covered my head with the bed clothes with the idea of turning a deaf ear to all future disturbances. But it was not to be. No sooner had I closed my eyes, then again I heard the ghostly sounds of fitful music, this time much more prolonged—now soft and low—now loud and shrill, and mingled with these came again wailings as of some human being in pain. All kinds of strange fancies came crowding into my brain, and my head throbbed and ached to a degree almost unbearable.

Could it be that I was in the house of professed gamblers? Was it possible that some of the men I had seen angrily disputing over their cards had victims among the group whom they were robbing, or worse still, murdering, in the room adjoining mine? But what then were the unearthly strains of music which seemed to float in the air? Surely if ever house was haunted, this little *albergo* was that house.

I could bear the darkness and the mysterious presence no longer, but rang violently at the bell which fortunately hung close to my hand. At once every thing was still. In a few minutes it was answered by a man bearing a lamp in his hand, and I demanded the cause of the strange sounds which had so persistently disturbed my rest. My question seemed to petrify him—for a few moments he did not answer, but I heard a whispered consultation with some one who had accompanied him, and at last he called out that it was a 'stormy night'; that the sounds I had heard were due simply and solely to the wind; that I was mistaken in thinking I had heard anything unusual; and that probably I had had a bad dream.

•He then left me to get through the rest of the night as best I could.

For some time, probably an hour or more, after I had rung the bell, there was a cessation of all mysterious noises, and, in spite of a strong effort on my part to keep awake, nature asserted her rights, and I must once more have succumbed to my weariness and fatigue and fallen into a doze, when something suddenly caused me to wake with a start. I again became conscious of a cold blast of air passing over me and causing me to shiver as one does in a bad attack of intermittent fever, while my ears were once more assailed by unearthly music, which this time seemed to assume a more definite sound—soft plaintive notes which resolved themselves into a long, low wail, and then suddenly ceased.

It was getting towards morning—the first streak of the dawn was creeping in through the uncurtained casement of the room and was sufficient to make partially visible the various articles of furniture, and, thinking to dispel my uncomfortable illusions, by a brave look, I sat up in my bed and glanced searchingly around.

What I saw caused my heart to stand still. Seated on the low window sill was a woman—wild and unkempt—scantily clothed in what appeared to be a few dirty rags—her hair, which was white, hung over her face in dishevelled locks,—and in her hands she held some cards which she was sorting feverishly, rocking herself to and fro the while and muttering uncouth sounds of disapproval. As I gazed at her, almost paralysed for the moment with horror, she dropped the cards into her lap, and, throwing her long skinny hands over her head, uttered a wiced and unearthly wail.

I sprang out of bed, but unfortunately my foot got entangled somehow in the bed clothes, and I stumbled clumsily and fell to the floor; and—when I recovered myself and looked round—she was gone.

Again I rang my bell, and, unlocking my door awaited, the arrival of my host, determined this time to get to the bottom of the mystery, and, on his appearance, I related, somewhat excitedly, what I had heard and what I had seen, and sternly demanded an explanation of the occurrences of the night, winding up with a hint of exposure if I did not arrive at the truth.

"Signor," said the man with an exasperating grin, "I will be frank with you. In the room adjoining this, sleeps Guiseppo, the goatherd, and his flock. He groans and snores dreadfully, does Ginseppo, and the goats—well, the goats groan too, and no doubt their bells ring when they turn in their sleep, and Guiseppo plays his pipes sometimes too, and the Signor must have heard this and that was all. I assure you there is no old woman about, such as you describe—there is Annetta, Guiseppo's wife, but she is young and good looking. The Signor must be mistaken—he could have seen no old woman—it must have been a dream—nothing more."

"If it was a dream," I answered, "what is this?" and I pointed in triumph to the 'ace of diamonds' which lay face upwards on the floor just beneath the window seat.

"Ah, Signor," replied the man with more grins and much gesticulation, "all Italians play cards, and this must have been dropped by the last occupants of the room." He then drew my attention to something I had not observed before. "You did not close your window, Signor, there was much wind last night, and it must have blown the card over here. It also blew the Signor's face, which explains every thing," he concluded with another grin and a look so patronising as to be positively contemptuous. Then, saying he would send me up some breakfast, he left me still unconvinced and unsatisfied. I examined the window and found that it opened on to a very narrow stone parapet or balcony which seemed to run the whole length of the house, and that it was secured by a latch which could also be lifted from outside. Of the partial truth of the man's explanation I had, a little later, ocular proof; for Guiseppo, the goatherd, happening to open his door at the moment that I was leaving my room, I had the pleasure of being preceded downstairs by four or five goats of sorts, a shaggy dog of somewhat ferocious aspect, and a

miscellaneous collection of fowls. Annetta, a strikingly handsome, but exceedingly dirty young woman, bringing up the rear.

I was nevertheless firmly persuaded that I had not heard the whole truth, and absolutely declined to admit for a moment that my "old woman" was a mere figment of my brain.

It was quite by chance that, being again in Naples some five years later, I heard the following story, which had in the meantime become public property through the medium of the police courts, and which seemed to me a sufficient explanation of the events of that gruesome night.

Signora Pampini was the wife of a man belonging to one of the best families in Rome, but having been seduced from her home by a fascinating but utterly unscrupulous villain, she drifted out of society, and, being abandoned by her lover, took first to drink, and then to gambling. She fell into the power of two adventurers, and she passing as their sister, they visited in turn nearly all the gambling saloons in Europe. On one occasion she made an unusually lucky *coup* and left the table the winner of 100,000 francs. This piece of good fortune, coming on the top of a persistent run of bad luck, was too much for a mind already weakened by dissipation and drink, and in three days she was a raving maniac. The two men, anxious to possess themselves of her money and to get rid of her, carried their victim off to Naples, where they consigned her to the tender mercies of the man under whose roof I had slept that memorable night, and who had once been employed by one of them as a *valet*. Then they divided the spoil and separated, after having concocted an ingenious story of the death of the unfortunate woman, in case of any awkward enquiries being made as to her whereabouts. But no one ever enquired for one who had long been an outcast from her family, and forgotten by society, and nothing further would probably have been heard of her, had not circumstances arisen which led to the leaking out of the story which set all doubt in my mind, as to the reality of my ghostly visitor, at rest for ever.

F. P. J.

IN THE DAYS OF AKBAR.

(BY LASSIE.)

(Concluded from page 202.)

CHAPTER X.



IN a warm August morning the city of Delhi seems to be in an excited state. Bells are ringing, trumpets sounding, and people shouting. An announcement has just been made to the public by the Minister to the effect that a son has been born to Akbar and the Maharani Mary, who is to succeed his Imperial father on the throne of Delhi ; and an invitation given to all to come and inspect the royal infant in the Durbar Hall that day week.

In the meantime, in a low tumble-down hovel on the outskirts of the city, are gathered together in whispered consultation the old woman Nuttea, the young Rajput chief Bharata, and a tall half-naked man, with long matted locks, clad only in a strip of red cloth twisted round his waist and flung over one shoulder. His face, fierce and louring by nature, looks still more savage by the thick, white streaks of paint across his forehead and down his nose and cheeks. His breast, too, is adorned in the same way.

"Thou art sure of the effects of this?" whispers Nuttea, looking at a transparent powder in her hand.

"Sure?" repeats the *joghee* contemptuously. "Do I not tell thee it was given me by Kali herself?"

"Was it?" Bharata asks eagerly. "Tell me now, thou knowest it?"

"It was so your Highness," the *joghee* replies. "Last evening after you came to Kali's temple and told me, your sister's doom was sure; now the Feringhee dog has had a son, and asked me to pray to Kali for help—well I went to the temple and made *poojah* and burnt incense and prayed. Then I ate my *dhall-rotie* and slept. In my dreams I saw Kali herself near me. 'Rise, my son,' she said 'thy prayer is heard! It is not Vishnu's will that the son of this upstart should supplant the son of Dewal, daughter of the Rana of Chittore, on the throne of Delhi. When thou wakest' said Kali, 'thou wilt find a small packet containing a transparent powder under thy head. Keep it carefully till an old woman and Bharata Rana come to thee. Give it to them, tell them to mix it

in milk and give it to the Feringhee girl.' She then vanished, and I awoke. I felt under my head. Yes, there was the packet. I have given it to you, and my duty is done. Farewell, and Kali speed you on your way." He turns and stalks out of the hut, and the other two look at each other in silence. "Thou wilt use it?" questions Bharata hesitatingly.

"Surely, my son," the old woman says promptly. "Has not Kali herself come to our rescue? Said I not, it was not the will of the Gods that Dewal should be degraded? In their own time they come to help us. Cheer up my son, all will be well shortly. Why lookest thou so sad, Bharata?" she adds curiously, looking up into his grave face.

"I like it not, mother," says the young chief uneasily. "She is a poor weak girl, a stranger in the land. Perhaps she might die naturally—wait and see," he adds eagerly.

"What meanest thou, Bharata?" asks the old woman. "Naturally? Of course she will die naturally. Of what dreamest thou, my son?" She looks up with a very innocent air at Bharata. The young man sighs, and, turning from the hag, leaves the hut abruptly.

"Ha! ha! Craven-heart!" laughs the old woman, carefully tying up the packet in a corner of her red *saree*. She then sets off back to the palace, exulting at the means in her power of getting rid of Dewal's helpless rival.

She proceeds at once to Dewal's chamber, but finding she is not there, goes upstairs to Mary's rooms. A pretty sight greets her eyes as she opens the door. On the richly-festooned bed lies Mary, very pale and delicate, but with a happy, proud light in her soft blue eyes as they rest on her infant son.

Beside the bed in a low comfortable chair, clad in her usual clinging, rich orange-hued, silken *saree* sits Dewal, her hair neatly braided up with sweet-scented *bala* flowers. Mary's son lies on her knees in a little pink silk *curtah*, one chubby fist closed and the thumb in his mouth, the other fat, fair little hand clasping Dewal's dark finger.

Selim stands at the foot of the bed, rubbing his head up and down the tester and eyeing the infant with a look of mingled interest and jealousy, while the slave girl Jankie, squatting near the bed softly fanning her mistress, completes the little group.

"Dewal"! exclaims Nuttea in surprise. "You here?" "Yes mother," says Dewal gently. "All this time I have been very unhappy, and hated Mary for having taken my place; and I prayed that she might die, but it was not to be. She has lived and has a son. So I see it was Heaven's will, and I have come and made friends with her. We are sisters now. You forgive me, my hard thoughts of you, Mary?" Dewal asks, turning to the girl.

"Oh yes, Dewal dear," Mary says, drawing the dusky face down to her own fair one. Jankie laughs and claps her hands in glee.

Nuttea looks on with a bitter light in her sunken eyes. "Very fine," she mutters, "But it won't stop me." "I feel so thirsty," Mary says languidly. "Get me something to drink, Jankie." "Stay," says Nuttea, before the girl can rise. "Do you fan her, I will bring the Maharani some milk," and she walks out.

She returns with a large glass of milk which Mary drinks with relish. "How sweet it is," she says, handing back the glass with

a little milk in it. She glances up at the old woman, and says rather timidly. "Dewal has forgiven me for taking her place, Nuttea. Won't you forgive me too?"

"Oh yes," says Nuttea, ungraciously. "*Now* I will."

"See, Nuttea, what a fine child this one is," adds Dewal, holding up the baby now awake, and looking about with wide-open blue eyes. "Yes," says Nuttea, barely looking at it. "Let me give it some milk also," and with a spoon she gently gives the little thing some from the glass. "Give me some, too," says Selim coming up.

"No, no," says Nuttea hastily tossing the remainder out of the window. Mary laughs. "You are too big a boy for milk, Selim," she says gently. "Come, my Dewal, we will leave the Maharani to sleep now. Jankie, watch your mistress well," Nuttea adds, taking Selim's hand to lead him away.

"Shall I go, Mary?" Dewal asks gently.

"Yes, dear," says Mary yawning. "I feel strangely sleepy, and look at baby, how soundly he sleeps." Nuttea glances hastily at him and laughs. "Thou wilt sleep too," she says, calmly looking at Mary. "Yes," says Mary, nestling amongst her pillows and shutting her blue eyes. "I feel sleepy. Good-bye dear—" her voice dies softly away. "Come," whispers Nuttea. "The Maharani sleeps," and they softly steal away.

CHAPTER XI.

"Do you know, my Dewal, why I would not let Selim drink the milk from Mary's glass?" asks Nuttea about an hour later, as she gently brushes out Dewal's long, dark tresses. Dewal laughs. "No, my mother," she says, "unless it was because she is a Christian."

"My daughter," says the woman gravely, "thou art revenged. By this time thou art Akbar's chief wife—thou art Maharani again; Mary is no more." Dewal looks up at the excited face of her foster-mother in surprise. "My mother," she says quietly. "You dream."

"Do I?" cries the old woman triumphantly. "I know that in that milk was a charm given by Kali herself to destroy Mary. Mary is no more. That milk was poisoned."

"Mother," cries Dewal starting up, "What is this you tell me? What have you done?"

"Said I not, thy sun would rise again; that it was not the will of Heaven thy place should be taken by this upstart?" repeats the woman with fierce triumph. "I have revenged the insult offered to the daughter of the Rana of Chittore. I have restored thee to thy proper place."

Dewal turns from the woman and rushes up to Mary's room. She enters hurriedly and Jankie whispers. "Hush, hush! My mistress sleeps."

Dewal rushes to the bed, and looks down. Mary lies with her baby on her arm, her face bending over the little creature.

"Mary," cries Dewal, "Mary dear, it is I—wake up." No answer. Dewal stoops and puts her hand on Mary's arm. Icy cold it is. She lifts up the thin hand, and it languidly falls from her grasp.

Snatching up a small mirror, she puts it to Mary's lips, but no passing shade dims its brightness. Then Dewal bursts into tears. "Oh Mary, Mary," she wails. "I am too late to save thee! Oh my

Akbar's beloved wife, where hast thou gone? Oh who will comfort him?"

"What is it?" whispers the slave girl timidly. Dewal turns to her. "Run, run, Jankie! Call the Emperor. Run for thy life. Mary is dead—dead!" she cries wringing her hands pitifully.

"Dead!" exclaims Jankie, and darts from the room. She races into the Durbar Hall: "Oh Akbar, Emperor," she cries, bursting in, "Come soon. The Maharani is dead!"

There is a great uproar. Akbar starts from his throne and accompanied by Ross and Abul Fazil hastily ascends to Mary's chamber.

They find Dewal weeping beside the bed, while Nuttea stands muttering curses in the centre of the room. Dewal starts up, as the Emperor enters, and regardless of the presence of the other men, flings herself into his arms exclaiming! "Oh my beloved! Who wilt comfort thee now she is gone? The spirit of thy loved one is fled. I would have saved her for thee, Akbar, but I knew it not. I was too late." "Hush, hush, my loved one!" Akbar whispers tenderly, feeling keenly Dewal's affection for him at this moment. He puts her very gently aside and advances to the bed over which Ross and the Minister are already bending. He bends down and whispers "Mary," but there is no answer. "She is dead," whispers Abul Fazil softly. "Who did this?" he asks looking from Dewal to the scared Jankie, then to the muttering Nuttea, and lastly at the Calmuk women crowding round the door.

"Who did it?" exclaims Nuttea shrilly. "I did it. I poisoned her and her son. Akbar's heir forsooth!—Goddess Kali gave me the poison; *she* knew, though that Mahomedan pig did not, that a Rana of Chittore's daughter could not be insulted."

"Take that woman into custody," cries Akbar indignantly. The Calmuk women advance and drag Nuttea away. She goes screaming out abuse and curses, mingled with blessings for Dewal, till her voice dies away in the distance.

Akbar leads Dewal to her rooms and takes a tender leave of her before he returns to Mary's chamber. From this moment Dewal is restored to her place in his affections, and never again does his love for her falter.

• He grieves sincerely for Mary cut off in the bloom of her youth, and erects a splendid marble cross over her tomb.

That night two of the guard under Ross's command issue from the palace gates bearing a large sack. They take it to the riverside, and fling it in. It shakes about a little, and a stifled, agonised cry comes from it; then it sinks heavily, and all is still.

The soldiers stand on the bank watching the widening rings of water where the sack sank, till they break with a soft splash one by one at their feet. When the last ring has died out and the river runs dreamily on, the men retrace their steps to the palace, and nothing more is ever known of Dewal's foster-mother, Nuttea.

* * * * *

With the death of Mary, all hope of Akbar's conversion is at an end. He gradually leaves off attending mass, and finally dismisses the Christian priests from the palace. As long as Dewal lives he continues fond of her, but after her death he falls completely under the influence of Abul Fazil. He marries many more wives, both

Mahomedan and Rajput, and under their influence does many strange things. At one time under the combined influence of his minister and Mahomedan wives, he imagines himself the prophet or Imam who was to teach a new creed and usher in the millennium.

At another, under the influence of his Rajput wives and Abul Fazil who, like a straw, bent wherever the wind blew,—he imagined himself an incarnation of Vishnu, and as such had himself worshipped by the people. Selim, however, remained his father's heir and finally succeeded him on his death in 1605, when he ascended the throne with the title of Jehangir or "Conqueror of the World."

Akbar was buried at Secunder near Agra, and crosses set up round his grave, but whether in memory of his fair young Christian wife, or not, it is hard to say.

[THE END.]

ADVENTURES IN SEARCH OF A FUQUEER.

(Continued from page 196.)



E had a long chit-chat together, the Fuqueer appeared to have warmed considerably in his feelings towards me. Whilst smoking and chatting I got up and went to Goolaub, told him to strike tents, pack all up, get coolies and be prepared for an immediate return. I gave the Fuqueer several hints about returning with me, his excuses were many: first he said, "how can I walk;" secondly, "who will cook my food for me on the way as I am a high caste Brahmin." I told him in reply, that I would supply him with a *dandy* and four men specially to carry him, and that a Brahmin cook should be engaged for him. He was very pleased, and said he would accompany me. I ordered breakfast to be speedily served, procured a Brahmin cook, and, when all were ready, I told the Fuqueer I purposed making a start. He looked at the *dandy* and laughed, said he had never sat in one, &c. I replied, "get in and you will see it is like a chair." I gave Goolaub the wink to start the loads, and no sooner had the Fuqueer taken his seat in the *dandy*, then the order "Quick march" was given, when away we started. I kept on one side of the *dandy*, Goolaub on the other. When crossing the suspension bridge across the Ganges, the Fuqueer began to realize his position, tried to get out of the *dandy*, implored of me to put him down, and allow him to return; but I would not consent; at last he fairly burst into tears and loudly exclaimed: "Farewell my dear old hills, I am leaving thee for a time, but I will certainly return. Ah! Garden Sahib, this is very unkind of you." I tried to pacify and coax him, and kept chatting and talking to him. Not a word would he speak, studied a steady silence. I made a 16-mile march, had the camp pitched in a charming, shady spot near a beautiful stream of water, and, on arrival, did all I could to make the Fuqueer comfortable. He ordered his food to be cooked. I told Goolaub to keep a sharp look out upon him; the Fuqueer's two Bengallee attendants were always in attendance. About mid-day, after he had eaten and had a sleep, he sent for me, and fairly opened his heart to me—became very friendly—praised me up to the skies, and gave me his word of honor, that he would accompany me, give me no trouble, and would go back to his home. I promised to treat him with every respect. He seemed to be very pleased, so we smoked the pipe of peace and swore eternal friendship. A few marches brought us back to Mussoorie. As we had to pass through Texel, we went and again called upon the Rajah. On reaching Mussoorie, I took him to my house, gave him a room, and did all I could to add to his comforts. I immediately wired to his

brother, the Rajah, informing him of my success, and received a reply in return thus: "Hasten down with all speed." We stayed a week at Mussoorie. My many European friends were astonished at the rapidity of my return, and much more at my having succeeded in getting hold of the runaway.

On we got to Meerut, and from there took the train to Burdwan. On reaching Burdwan, I again wired to the Rajah announcing our safe arrival there. A return message immediately came, asking us to wait a few days, when he would send an escort to convey us to his palace and dominions. We stayed at the Dāk Bungalow.

The Fuqueer had now become very intimate, nay quite friendly. We used to have long *tele-à-tele*s together; he sometimes relating his travels to the Snowy Thibet and to many other sacred shrines he had visited since donning the garb of a Fuqueer, and I found him very intelligent in every way. One day after dinner we were seated having a very confidential chat—addressing me by name he said, "Sahib, do you know that I have met the 'Nana' in my travels, and what is more, he intends visiting Hurdwar this cold season in disguise; as there is a large Government reward for his capture, why do you not undertake to secure it?" Of course I will, if you will give me full particulars. He replied, laughing, "you have caught me so nicely, surely you will find no difficulty in catching him." This news startled me, I pondered the matter well over, and took notes of all he said. After a day or two, a special messenger arrived with a letter from the Fuqueer's brother, the Rajah, thanking me for all I had done, and saying that he would send a *palkee* and an escort to convey us to his capital. The Fuqueer was delighted. I tried to persuade him to change his garb of a Fuqueer, have his hair and beard shaved, as both were tangled, and of immense length, but in vain. After he reached his home, he said he would return to civilized life. At last the *palkee* arrived, and an escort of men with swords and matchlocks. Twelve bearers to each palanquin, and several torch-bearers. We started from Burdwan at sunset, and were told we would reach the Rajah's palace on the second day, so we halted a day at Midnapore. The following night we left again for the Rajah's palace and reached it about 9 A.M. About a mile from his estates, we were met by the Fuqueer's relatives on handsomely caparisoned elephants, and with a native band of music. Within a quarter of a mile of the Rajah's residence, the roads were lined on each side with his rayats, all *salaaming* a welcome to the supposed lost humanity. In due time we reached the Rajah's palace; a guard-of-honor received us. On my leaving my palanquin the Rajah's son welcomed me, and the Fuqueer was taken away to his side of the palace, where his wife and daughter awaited him. I was taken to a large double-poled tent that had been pitched for me, it was sumptuously furnished; the sideboard groaned with every variety of English wines and other luxuries. Servants waited upon me, and I was told the Rajah would receive me in state that evening at 5 o'clock. But I was not sorry the journey had ended, for the anxiety was considerable. I did not know but what the Fuqueer would give me the slip, although he had faithfully promised not to run away. My interview with the Rajah and subsequent events, must be related in another chapter.

HILLS NORTH OF DEYRAH.

(To be continued.)

TWENTY-FIVE MILES FROM MEDICAL AID.

[Government ought to provide that there be Medical aid within at least ten miles of any Dāk Bungalow, in case of serious illness seizing those taking shelter in those so-called houses of rest.]



DESOLATE, dilapidated Dāk Bungalow in a dusty Indian village: a bungalow that looked as though it had been unvisited by mason or whitewasher for many months: a bungalow from whose walls the mouldy plaster was peeling in long, disreputable-looking, grinny strips: a bungalow with an untidy, grass-grown compound, about which a few scraggy fowls were scratching industriously; whilst a long-tailed, dun-coloured Pariah dog reclined with graceful ease upon a dust and refuse heap, just near the front door: a bungalow devoid of all signs of human life, save a dusky-skinned servant who sat—solitary and silent—upon the front verandah, watching the interior of the house and listening, with all an Eastern's stolidity and indifference, to the murmur of incoherent words and exclamations that floated out from thence.

The village was a small one, with only a few little mud huts and bazars lying round the Dāk Bungalow. No European dwelt within many miles of it, and it had not been a village ere the rest-house had been built—the huts had but gathered round it, as in older English times the country people built their cottages 'neath the shadow of some stately castle.

Dolce far niente reigned supreme in that little collection of *shantees* that day. It was a blazing noontide in June, and the inhabitants of Dākagunge were courting king Somnus, resting in picturesque attitudes under any shade that was obtainable. Hardly a sound was to be heard, but the chattering of mynas, and the peevish cawing of the crows as they grumbled at the excessive heat.

The native seated upon the Dāk Bungalow verandah began to find his vigil hot and wearisome. He rose, stretched himself luxuriously, cast an indolent glance inside the house, and then, going to the compound gate, gazed down the dusty, glowing vista of high road. A cloud of sand at the far end, and the faint tooting of a horn attracted his attention, and roused a gleam of interest in his sleepy eyes. 'A dāk garri coming!' he communed with himself. 'I wonder if it will be anyone who can help sahib?'

Presently up rattled the ponderous vehicle to the Bungalow gate, rousing the sleeping denizens of that God-forsaken little village, and bringing forth a tattered and ancient khansama from some haunt at the back of the house.

"What a dreadful place to stop at!" exclaimed the lady occupant of the garri, as she looked with dismay upon the untidy compound,

the refuse heap and the grim pariah dog, who had set up a derisive and ear-piercing bark in greeting to the strangers.

As, however, it was too overpoweringly hot for her to travel any more that day till the sun went down, Mrs. Raynham was obliged to accept the poor shelter that offered, and, quitting her garri, she entered the dismal house followed by the khansama; who promptly began to badger her as to what meals she would require. Referring him to her bearer, Mrs. Raynham looked around the scantily furnished room, with its charpoy, round table, two or three chairs, and common meatsafe.

"What a horrible place!" she exclaimed again, and then, becoming conscious of the confused murmurs in the house, stopped to listen. "There are other people here apparently; I wonder what they are like? How incessantly they talk! where can they find energy enough to do so in this boiling weather? I suppose they are in *that* room" (looking at a door that was in the left wall of the room wherein she stood).

She was proceeding to take off her hat, when the servant, who had watched her arrival, entered, and salaamed obsequiously. "Salaam," she responded, "although I don't know who you are! What do you want?" "My Sahib very ill, memsahib!" answered the man, with a glance at the other room. "Indeed? Hasn't he got anyone to look after him?"

The bearer, though not a fluent English scholar, yet possessed more knowledge of the language than most natives do, so replied: "No, Sahib all 'lone, memsahib."

'Poor fellow!' thought Adelaide, 'tis he talking I suppose; he must be delirious. Well, it is not my line to look after sick strangers, still I can hardly do else than try to help him, stranded here in this lonely place with no friend near him, so—"Bearer," she said aloud, "take me in to see your sahib." The native gladly led the way into the other room. It was, if possible, still more dismal and ugly than the centre one—with a thicker festooning of cobwebs from the roof, a scantier furnishing, and a more broiling atmosphere as the hot mid-day sun glowed full upon the floor from a skylight in the roof.

Taking in all these points at a glance, Adelaide turned her attention to the stranger she was visiting.

Upon the common, comfortless, country-bed, across which a rough rug had been carelessly thrown, with no pillow to his head, and tossing ceaselessly, lay the thin figure of a man—his face worn and ghastly with the fierce touch of fever, and his brown eyes glaring with the wild light of delirium and temporary madness.

With a startled cry, Adelaide rushed to the bed, and, casting herself down by its side, gazed eagerly into the sick man's face; whilst he (even through his fever, conscious of a new comer) stopped his vague babblings, and returned the gaze. For a moment a look of peace entered his eyes, and then, pushing Adelaide away, he cried sharply: "Go away! why do you try to cheat me? You pretend to be Adelaide, but you are not. I know better! . . . Addie! Addie! Why don't you come to me? I want you so much!"—with a piteous note of appeal in his voice—"I never meant to be angry. . . . Where is she? When will she come?" he demanded of Mrs. Raynham suddenly.

"Oh! my God, this is terrible!" she cried with a sob. "Oh! what can I do!" and, rushing from the room, she called the stranger's servant after her.

"Bearer, is there no doctor near hear?" she asked agitatedly. "Have you had no one in to see your master?"

"No, memsahib, there is no Doctor Sahib near; one lives twenty-five mile far 'way!"

"Even so, we must send for him. Go soon! Your sahib is very ill. No, don't you go!"—as the servant was hurrying off—"send one of the Dāk Bungalow men, and wait, I will write a chit for the doctor." And hastily scribbling a few words upon a card, which she took from her bag, she gave it to the man and told him to send it off immediately, which he did. [*En passant* I must say that both Mrs. Raynham and he might have saved themselves the trouble they took in sending for the doctor, for the native to whom the card was given, being of a lazy disposition, and, finding walking hot and tiring, tore up the card after he had gone a few miles, and spent the remainder of the day, sleeping peacefully under a wide spreading banyan tree.]

When the bearer returned to the house, he found Mrs. Raynham in his master's room, trying to bring a little comfort into the comfortless surroundings of the poor invalid. She had opened his roll of bedding—which the bearer had been too lazy to do—and placed two soft pillows under the tossing head; darkened the room as much as she could, by shutting all the venetians, and when she saw the man, she ordered him to go on to the roof, and put something over the skylight to exclude the blazing sun. That having been done, and the room having attained a pleasant dusk, she made the native stand by his master's bed, and fan him with a large punkah that she had herself been using in the dāk garri; whilst she caused her own bearer to cut some of the ice, which fortunately still remained in her ice-box, and proceeded to rub it gently to and fro upon the burning forehead of the invalid, listening, as she did so, to his rambling conversation.

"Three years . . . three years . . . how much longer? Will she ever return to me? She was so loving! . . . What walks we took! . . . Come Addie, let us go to the Gresham woods to-day, it is fine and bright . . . It was much brighter just now—almost too bright . . . Well let us stay in the garden dear; I like you in that dress, darling, it suits you . . . Addie! Addie! where are you? Where are you? The woods are so dark, and you have left me so long. Ah! I thought you would come again! Give me your hand, dear . . . how small to have so heavy a ring! . . . Only three days married it seems a lifetime of happiness! . . . Did I offend you, Addie? Forgive me, mine is a churlish tongue—apt to give offence . . . You must bear with me, Addie . . . Oh! Adelaide where have you gone again? I thought you were by me! Gone again!! Gone, gone!!!" . . . "Hush! hush! darling!" whispered Mrs. Raynham as the tears ran down her cheeks. And the oriental, as he fanned monotonously on, noted all this, and wondered at the tender heart of the English memsahib which could feel sorrow for a man she had never seen within an hour ago.

"Adelaide," said the weak voice from the bed, taking up its

weary tale again. "I was wrong to speak to you so sharply . . . Only one year after to quarrel so bitterly! You must remember, Adelaide"—with sternness—"that I am not a millionaire; if you wished for such expensive dresses and jewellery, you should have married a richer man than I . . . You have a right to spend my money? Yes, but not to squander it! . . . Oh! That was cruel! I do not begrudge it to you, but we must consider if we can afford . . . You hate me? Then leave my sight, and never enter it again!"—in raised tones of anger—"What! Has she gone? Left me for ever! Oh! Addie, how could you think I meant it? My darling! My darling! . . . So much money now! . . . No one to spend it! . . . There she is! Quick! Follow her!"—rising in excitement from his bed, and pointing to a corner of the room—"If I could only see her . . . she would soon know I didn't mean it . . . Have you got a clue? You think you can find her? . . . If Addie, who left her husband in anger, will come back to him—she won't, she hated him! . . . Poor man! So lonely now!"—in tremulous pity of himself. "I can't bear it!" cried Mrs. Raynham, rising from her knees and hurrying sobbing from the room, and the native wondered again.

When she had conquered her emotion sufficiently to return again to the sick-room, Mrs. Raynham found to her delight that the coolness and dimness of his surroundings had acted favourably upon the patient's fevered brain, and that he had ceased his painful speech, and closed his wild eyes in the first sleep that had been near them for more than a day and night.

Noiselessly dismissing the bearer—who was becoming quite exhausted from his unusual exertions of fanning for about an hour—Mrs. Raynham knelt down by the bedside, and continued the punkaing herself, noting meanwhile the ghastly pallor and worn weariness of the face that gave promise in health of being handsome.

"How ill he looks!" thought she, with pitying sorrow, "so white and sad. How he must have suffered. I hope he will wake up conscious from this sleep and yet—how will it affect him, I wonder? What a dreadful place to be ill in! I wonder what he was doing in this neighbourhood? Oh, shooting, I suppose, as she noticed a cartridge belt and two guns in a corner of the room. He always had a desire to come to India for big game shooting . . . When will that doctor come, I wonder. It is dreadful having to send twenty-five miles for medical aid."

And so she knelt for five weary hours, with true womanly patience beside the bed, noiselessly fanning and scarce daring to breathe or stir lest she should disturb the sleep which might be the saving of the man's life. At five o'clock the stranger's bearer, looking as ashamed of himself as a native can—for he had been enjoying a glorious siesta all that long time, and had only just remembered his sick master and the good Samaritan lady—came to the door to see if he could do anything; but Adelaide frowned him away, fearful that he would disturb the sleeper, and for another half hour she knelt, growing very dazed and tired with her long penance, upon her knees, but still patiently bearing it for the sake of—charity? Yes, if you take the word in its meaning of love.

"No going on my journey to-night," she thought, as the room grew still more dark, and she knew that the dim shadows of

the Indian night were gathering round. "The Myers will wonder what has become of their new governess, when I don't arrive at their place to-morrow; but I cannot help that. I wonder how my poor fellow will be when he wakes out of this long rest? I wish his bearer would come and open the room a little bit, for in this strange place I am afraid of snakes. Oh, there he is!" and as the bearer stole to the bedside she whispered to him to lighten the room.

Perhaps he made some slight noise in doing so, for as he went out to remove the covering from the sky-light, his master opened his eyes (now happily illumined with the light of sensibility) and found Adelaide bending over him. "Still too weak and ill to be fully alive to his surroundings, he murmured low—"So I died, did I? I thought I should when I got that horrible fever, and this is Heaven, with my Adelaide's face to greet me upon my arrival! When did she die, I wonder? But what a dirty, dark place Heaven is!"—with a faint surprise in his voice, as he glanced round the dingy room—"I would almost doubt it being Heaven, if it were not that I see Adelaide.

"When did you come, Adelaide?" he asked simply.

"To-day, darling," she answered softly, bending to kiss his brow, "but you are not in Heaven, nor yet dead, my love, you are only in a little Dāk Bungalow in India, with your wife beside you."

"Then it is Heaven to me!" said Ralph Raynham, too content to question how his long lost wife came to be there. Simply opening his arms in greeting, she nestled down in them, with her head resting close by his on the pillow, and so the bearer found them, when he returned to the room to see if he could do any thing more for the good memsahib. I suppose he but thought it another of the sahiblogues queer ways, that a sahib and memsahib should embrace in such loving fashion only a few hours after their first meeting.

And now I am going to leave that re-united pair. After one or two relapses he, of course, grew strong again, and equally of course they never quarrelled again, and she never fulfilled her engagement with the Myers. But I maintain that it was not Government's fault that Ralph Raynham did not die in that desolate Dāk Bungalow, twenty-five miles from all medical aid.

If a doctor had been nearer, the natives might have taken the trouble to send for him.

UNDER THE LINDENS.

(*A Midnight Story in two parts.*)

"There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy."

SHAKESPEARE.

PART I.



EFFINGHAM Towers was an old grey stone, turreted, Norman mansion, with a long oaken corridor, which ran the whole length of the building, and which, with its collection of family pictures, was the principal feature of interest, so visitors were allowed to look over the place once a year when the family went abroad. The Towers stood on a mound, and commanded a fine view both of the Sussex Downs and the English Channel. Grim and grey and stern, it looked in the winter; but on the day that Joan Effingham came of age, when the June roses were filling the old gardens below with scent and colour, when the waters of the English Channel lay blue and smiling beneath skies which smiled back as blue and as brightly, when the Downs were green and smooth and thyme-scented, the old Towers lay basking in the summer warmth and sunshine, green with moss, and picturesque with the innumerable flowering creepers which clung to its time-worn, weather-beaten old walls. From the length of panelled oak, which ran from polished floor to carved ceiling, men and women of a past generation, by-gone Effinghams, lords and ladies of high degree, and little country maidens whose faces had been their only fortunes, smiled down gaily or sadly, while others looked as haughtily as only an Effingham knew how to be. Here there was a Beauty by Gainsborough, there a Bearded Courtier by Vandyke; one of Reynold's Red-headed Children smiled down from one canvas, while a First-cousin of a living Effingham peeped shyly and sweetly from another, showing in every curl of the golden head, in every curve and line of the childish form, the touch of Millais' brush. But the most noticeable picture of all was that which hung a little apart from the rest, at the end of the corridor, where the light fell full on it from the window which looked out to the west when the sun was setting at the time my story commences. It was the portrait of a very beautiful woman, who had lived in those remote regions, of which we hear so much and really know so little—the days of "long ago." A full-length portrait in oil of a woman dressed in white from head to foot—the "White Lady of the Lover's Walk" as she was called, the Joan Effingham of a bygone age.

The face of this woman, who had been a famous "toast" in her day, and the belle of the whole country, was striking in its beauty; oval in shape; delicate in colouring; with dark eyes full of a certain wild passion in which lay an under-current of despair; the eyes and lips almost seemed to move, as the pictured face looked down with its scornful expression at the living face which smiled up from below; for a girl was standing beneath the portrait of the "White Lady," and

beside her stood a man, and the face of the living girl might have been the face of the dead—with a difference. The woman in the picture had loved and suffered, her descendant, the Joan of the nineteenth century, loved, and was happy—as yet. The picture was by an unknown and promising young artist whose greatest and best work had been this, into which he had put all his genius, all his heart and soul; but when the picture was finished, the artist was dead, and, it was said by some, of a broken-heart, for love of his beautiful sitter.

"She is very lovely, is she not?" said Joan, still looking up with intense admiration at her ancestress. •

"Very," warmly replied the young man, looking not at the picture, but at her. "They say I am like her," continued the girl without a spark of vanity in her heart. "Do you think so?"

"Yes, but you are far, far more lovely," was the reply given with such unnecessary energy that the girl smiled, though she blushed at the same time with pleasure at her lover's praise.

The red glow in the Western sky fell through the open window and on the picture, and brought a warm tinge of colour to the white satin gown and into the woman's face, and deepened the likeness between the two Joans. "She looks as if she might step down here," said the girl, shrinking away a little from the picture. "I hope she won't," Dick Hamilton replied, devouring the girl's beauty with his eyes.

"What should I do with two like you?"

"Oh! Dick, do you know she must have been very unhappy, to look as she does." And there was a world of tender pity in the young voice. "Tell me her story?" said the young fellow, catching both the girls's hands in his, and drawing her down beside him on a couch which stood near. "You have heard it often I am sure," said Joan.

"Yes, from the old house-keeper, but I want to hear it from you" was the reply.

"Well," she commenced, "you know that Joan Effingham, after whom I and most of the eldest daughters in the family have always been named, lived years and years ago. She was an only child, the heiress of Effingham Towers, and the daughter of old Iron Effingham, as he was called from the proverbial 'hardness of his nature.' Joan had been spoilt and denied nothing from her childhood upwards, but there came a time when she loved and wanted something her father would not let her have. She loved a young man who was poor, and friendless, and unknown."

"That's me," put in a melancholy tone, regardless of grammar. Joan smiled, and continued: "Iron Effingham said his daughter should never marry Geoffrey, and Joan said she would never have anything to do with his cousin, Rupert Effingham, whom her father intended her to marry, and make the master of the Towers. Then there came a time of 'wars and rumours of wars,' and Joan lost her lover; for, while he was away fighting for king and country, she heard of his death, and in grief and utter callousness, married Rupert, who was perhaps one of the worst men of his time and country, and men in those days could be very bad!" • And the speaker nodded her head wisely, and looked grave beyond her years. "Well time went on and the mistress of Effingham Towers, who seemed to care for nothing, not even for her only son, grew

more unhappy, and more proud day by day, while her husband grew worse, when on Joan's birthday, the very anniversary of this day, on which I was born too, Rupert Effingham insisted on having a grand ball. Every one for miles around came, but Joan, who wore that very gown in which she had already been painted, with the famous Effingham pearls round her throat, the necklace which is mine now, Joan was the loveliest woman in all her well-filled rooms. Towards midnight she seems to have grown tired of the noisy, fashionable crowd, and the dancing, and slipped out of doors, for it was a most beautiful moonlight night, and she walked away alone down to the lime-tree avenue, that is to the north of the Towers, the 'Lovers Walk,' as it has been called; for it was Joan's favourite walk with Geoffrey in the old days. Her husband, who always watched her jealously, stole out after her, and followed her the whole way. When she reached the avenue, he saw a man step out of it and meet her. It was Geoffrey himself, whom they all thought dead. Rupert saw the meeting, saw Joan's surprise and delight, and discovered that she had cared for Geoffrey all along. Stepping out of his hiding-place, he went up to them; whereupon ensued a terrible scene. The whole thing ended in a very short time, and when Rupert Effingham walked in among his guests again, shortly after the big clock in the turret struck twelve, he had left his wife and her old lover lying dead in each other's arms out there under the Lindens." Joan had grown quite white with the relating of her story, and there were tears in her eyes as she turned to Dick saying: "It was terrible, was it not?"

"It was," Dick replied gravely, adding: "How was it all discovered?" Rupert Effingham confessed all on his death-bed," said Joan, and then, after thinking gravely for a moment, she added, "Dick, my father makes me think sometimes of Iron Effingham, he could be pitiless, I believe, and I dread your asking him for his consent to our marriage to-night." Dick was very thoughtful too as he replied: "I have dreaded asking him all along; you have so much, I have nothing; but I thought perhaps on the night of your coming-of-age ball, he would unbend a little more than usual; and now tell me the rest of your story." "There is nothing more to tell, except that the lovers are said to haunt the lime-tree avenue on the anniversary of the night on which they were murdered, but it is only on a bright moonlight night, such as that particular one was, that they are seen. Old Mrs. Hoskins who has been house-keeper here for the last fifty years, and my father who is steeped in superstition, as I believe most of the Effinghams always have been, are the only persons, as far as I know, who say they have seen them. They supposed to appear usually before some marriage in the family takes place, that is, if the match is a true love one." "I wish they would appear now then, as a sign that our's to take place," Dick said with a half-mournful laugh. "I don't believe in the whole thing," Joan replied, laughing heartily. The two sat on in the old corridor, while the twilight deepened, and the many men and women on the walls began to look like so many phantoms in the glooming; they forgot all about the 'Joan and Geoffrey' of long ago, and sat on talking of many things more interesting to themselves, till the dressing bell rang.

GRETCHEN.

• *(To be concluded in the next.)*

SIC VITA EST.



passing cloud, a short spring shower ;
 A smile and a fleeting sigh ;
 Vows exchanged and a faded flower ;
 Joy and grief of the parting hour :
 Ere the last goodbye.
 Only an Ensign he,
 Only a maiden she ;
 But he is bold, and the tale is told,
 So her heart's no longer free.

A summer sky and a singing bird ;
 A laugh as they meet again.
 A boy no more—a man is heard,
 Pleading still for one short word :
 A word—but all in vain !
 Only a Captain he,
 Only a coquette she :
 For he is poor, an unwelcome wooer,
 So she says "it cannot be."

A golden glow and a purple sea ;
 The gorse and spreading heather ;
 A smiling man, whose heart is free ;
 A women wishing that "it might be :"
 In the autumn weather.
 A gallant Major he,
 A fading beauty she ;
 But he is cold, and the love of old
 She never again may see.

A fall of snow and a wintry sky ;
 A heart grown old and hardened ;
 A laugh at the thought of days gone by ;
 A smiling lip and a tearless eye :
 A woman not yet pardoned.
 Only a bachelor he,
 Only an old maid she ;
 'It might have been,' but now, I ween,
 'Tis late, too late, to be !
 •
 GRETCHEN.

SCIENCE AND NATURAL HISTORY NOTES.



SCIENCE NOTES.

ON PROCURING PATENTS.

QUESTION has often been put to us, "How should I go to work to procure a patent?" It is an easy enough matter, if the following advice be only followed. It has been wittily said that the man who undertakes to be his own lawyer has a fool for his client. The same is true in a multitude of situations as well as in the practice of the law, and we know of some empty purses and broken ambitions, the result of men undertaking to transact clerical and professional work which comes within the domain of vigilant and well-posted specialties. In the domain of mechanical inventions and the patents with which to protect them this is painfully true, and it is even a matter of record that some of the cleverest inventors of our time have beggared themselves in health, courage, and pocket by trying to secure their rights without the help of such expert intervention. A patent solicitor and attorney is of the first importance to an inventor; he is posted as to the expense of any given proceedings in his specialty, he can insure expedition as well as economy, and by his regular and watchful attention to the Patent Office, he is often enabled to spare his client the trouble of instituting what might prove to be wholly worthless claims, and hence the complete loss of his invention so far as securing protection in exclusive rights is concerned. It must assuredly behove inventors and owners of inventions to steer clear of blunders, and the proper thing to do is to place their matters wholly in the hands of some experienced attorney and solicitor of patents.

AMERICAN INVENTIONS IN FOREIGN COUNTRIES.

The demand for American machinery is constantly growing, and the published statistics of exports from that country attest the fact. American textile machinery, for instance, is being largely bought because of the numerous patented improvements which are being made in this line of mechanical construction. In the case of the American loom this is especially true, for it is generally thought that for speed and good workmanship combined, it is superior to all its foreign competitors. As a result it is being gradually introduced into many English factories, where practical tests have demonstrated its value. The American steam fire engine is being introduced into Germany. Certain officials of Berlin have been in the United

States, studying the system of fire-extinguishing apparatus, with the result stated. American railway engines and various other details of railway plant find buyers in different countries. American printing presses and wood-working machinery are in demand everywhere, and manufacturers in these lines find a constant increase in their export orders. The same thing may be said of steam engines, boilers, pumps, agricultural machinery and tools, mining machinery, electric light plants and electrical appliances, and in short the whole range of labor-saving machines is included in the list. Several paper-making plants having been sent abroad, notably to Japan, and Japanese buyers have been in America making selections for the equipment of a paper mill. Only recently there was shipped to Japan a complete plant for the manufacture of camphor. The list might be extended indefinitely, and indeed it would be difficult to make an enumeration which would not omit some article of American invention or some manufactured product which does not find a market abroad. Textiles, carriages, wagons and articles of every-day domestic use would be included. A correspondent, giving an account of his experience while travelling through Asia, says: "I saw advertisements for the sale of American watches filling whole columns in newspapers and large spaces on the outer walls of buildings in all the great cities of India. I heard the hum of the American sewing machine in the byways and broad streets of Bombay and Calcutta and Rangoon. I saw American lamps for burning American petroleum hawked about the streets on wheelbarrows for sale in Yokohama and Tokio and Shanghai. I heard the clatter of the American typewriter in Chifu and Tientsin and Swatow and Aintab. I saw American tram-cars running in the streets of Tokio, and the American windmill pumping water on the bluffs of Yokohama. I was glad when I heard the click of Connecticut clocks keeping good time for Orientals, who are always behind. California canned fruits and Oregon salmon and Boston baked beans in hotels all over the East made me feel that home was not so very far away."

VENUS.

Signor Schiaparelli, the Italian astronomer, who has made more wonderful discoveries among the planets than all the other astronomers of our day put together, has recently furnished a new surprise, greater even than his previous discovery, that Mercury performs only one rotation in the course of a revolution around the sun. He asserts that Venus, the brightest of all the planets that we see, the twin sister of the earth, also turns but once on its axis in the course of a revolution around the sun. In other words, there is no alternation of day and night on Venus, as on the earth. The planet enjoys perpetual day on one side of its globe, while the other side is plunged in unending night. Astronomers have heretofore believed that the time of Venus' axial rotation corresponded almost exactly with that of the earth's, namely, twenty-four hours. This was supposed to have been established by noting the return of spots visible on Venus to a similar position night after night, but Schiaparelli shows that some of these observations have probably been misinterpreted, and that instead of indicating a rotation period of twenty-four hours, they rather confirm his conclusion that the rotation is performed in 224.7 days, which is the time the planet takes to complete

a revolution around the sun, or, in other words, is the length of Venus' year. Venus is about 67,000,000 miles from the sun, and its orbit is more nearly a circle than that of any other planet. It follows that there is very little variation in the amount of solar heat falling upon Venus at different periods of its year.

Schiaparelli says the axis of rotation is nearly perpendicular to the plane of the orbit. If that is so, Venus has no diversity of seasons such as the earth enjoys. Its equator forever burns with the ardent heat of an unending summer, and its polar regions undergo no change of temperature. Inasmuch as Venus receives almost twice as much light and heat from the sun, in consequence of its greater proximity, as the earth gets, it must be pretty hot in the equatorial regions on that side of the planet which perpetually faces the solar furnace. If what the great Italian observer says about Venus' rotation is true, then the additional fact announced by him, that the planet's axis is perpendicular to the plane of its orbit, seems almost a providential provision of nature, for in that way it is rendered possible for the polar regions to enjoy a comparatively mild climate, although the equator and the spaces corresponding to our tropical and temperate zones may blaze with unendurable heat.

If the axis of Venus were inclined like that of the earth, the consequent variation of seasons would plunge the poles alternately into a day of fierce sunshine enduring for seventeen weeks and a frosty night of equal duration. The result would be that life under such forms as it assumes upon our globe would probably be impossible anywhere on the surface of Venus, for the sunward side of the planet would be scorched while the night side was frozen. But if as Schiaparelli's observations indicate, the poles of Venus are not tipped—now one and now the other—toward the sun, but remain upright at right angles to the direction of the sun, then in their neighbourhood the heat may be tempered just as it is at the poles of the earth, in accordance with the law of incidence of the solar rays. Of course the cold, being unbroken, may be very intense just around the poles themselves, and in fact within a few years past white spots have been discerned on Venus, about where the poles would be situated according to Schiaparelli's idea, and these spots may be caused by accumulations of snow and ice there. But in somewhat lower latitudes an agreeable mean might be found between the consuming heat of the equator and the glacial chill of the poles.

The imagination may not go far astray in picturing these intermediate zones, on the sunward side of the planet, as the scene of activities corresponding to those that mark the human occupation of the inhabitable parts of the earth. To be sure, the inhabitants of even these favored regions on Venus could not enjoy the agreeable interchange of day and night, but would be perpetually shone upon by the sun, but even here there are indications that nature may have provided at least a partial compensation. All telescopic observations of Venus testify to the blinding brilliancy of its surface, and the most reasonable hypothesis yet put forth to account for this phenomenon is the existence of an extraordinary amount of cloud in its atmosphere.

Anybody who has watched a sun-illuminated cloud knows how splendidly it reflects the light, and, of course, in looking at the clouds of another planet we can practically see only their sunny

side. If, then, as appearances indicate, Venus' atmosphere is largely filled with clouds, the effect would be to screen off the superabundant sunshine, and perhaps render even perpetual daylight far less obnoxious than we might, at first sight, be disposed to regard it. There are reasons for thinking that the atmosphere of Venus is most abundant. Its depth has been calculated to exceed that of the earth by about one-third, although Venus is a slightly smaller planet than ours. The existence of watery vapor in this atmosphere has been clearly established by spectroscopic examinations. Of the extent, or even the existence of oceans on Venus we know nothing by direct observation, but since the planet possesses an atmosphere and clouds, it is not unreasonable to conclude that it must have oceans capable of supplying the needed vapor.

DAMPNESS.

It is not to be wondered at that the ancients regarded water as one of the elements of which all things are composed; for it is a truth demonstrated by modern chemistry that almost all natural objects contain a large proportion of water. Not only the plants that drink the summer showers, and show by their juicy succulence that they have incorporated the liquid streams into their substance, but the very soil in which these plants grow, and the solid rocks themselves, contain a large proportion of water. And, when we take away from animals, and even from man himself, the water which they contain, the amount of solid residue left behind is surprisingly small. It is true that, in all these cases, our senses give evidence of the presence of water, and do not require the corroborative testimony of chemical analysis. The moisture adhering to soil and to rocks, the juice of plants, and the blood and other fluids present in animals, all evidently acknowledge water as one of their chief constituents and testify plainly to the presence of this liquid. But if we were to suppose that water is always absent from those substances which to our senses give no evidence of its presence, we should commit a great mistake. The dry and solid rock consists largely of water; and clay, though baked in the summer sun and dried in the summer breeze, cannot be robbed of all its moisture. When the washerwoman buys fourteen pounds of transparent and apparently perfectly dry soda, she in reality pays for nine pounds of water, and gets but five pounds of real soda, instead of the fourteen that she supposes she is getting. In short, water is present everywhere—in the dry wood that has for years formed our furniture, and even in the apparently perfectly dry dust that blows about our streets. Even the air, on a dry and sultry day when everything is parched and when every breath seems to burn our throats, is charged with moisture. That warm and apparently dry air contains moisture is easily proved. An ice pitcher becomes covered with dew, not because the pitcher *sweats* through from the inside as it is said to do, but because the water held in suspension by the hot air, even when apparently dry, contains a considerable amount of moisture. Procure a small quantity of salt of tartar, a cheap drug that may be obtained from any apothecary, and, on a dry day, lay it on a common plate, and expose it to the atmosphere. In a short time it will have attracted from the air an amount of water sufficient to dissolve it, and it will have become converted into an apparently

oily liquid, called by the old chemists who did not fully understand the changes that take place, oil of tartar. The experiment will be more convincing, perhaps, if the salt with its containing vessel—which in this case, however, should be as light as possible—be placed in the pan of a moderately delicate pair of scales, and carefully counterbalanced. In this case, the abstraction of the moisture from the air is rendered evident by the gradual increase in the weight of the salt and the descent of the pan in which it is placed.

If, then, moisture may be regarded as everywhere present, it becomes a nice point to determine when anything, such, for example, as the air we breathe, our houses, beds, clothes, etc., may be considered damp. To look for perfect dryness would be a vain search; nor would it do us much good if we could find it. Perfectly dry air would remove the moisture from our bodies so rapidly that we should wither as if smitten with the blast of the simoom. In such an atmosphere, our throats would be parched as if in an oven, plants would wither; and nature become one universal desert. But, on the other hand, air that is too moist—that is to say, air that is really damp—produces effects that are equally disastrous. In such an atmosphere, metals rust or corrode, vegetable matters rot, and the growth of fungi, such a mildew, mould, etc., is greatly promoted. Air in this condition is universally regarded as unwholesome; and it consequently becomes an important practical question to determine when our dwellings are really damp, and to distinguish between this condition and that in which bodies may be considered as ordinarily and properly moist. Theoretically, the question is one that is not easily solved; but practically, it is not so difficult. Let us consider the case of the air; and find out, if we can, what the conditions are in which it may be said to be damp.

When perfectly dry air is brought into contact with bodies containing water in a free state, there instantly begins a strife for the possession of the liquid. Since water evaporates at all temperatures, even when it is frozen solid, the air surrounding the moist body becomes loaded with vapor, and, as it then gradually mixes with the air in its neighbourhood, its place is supplied with drier air until the whole air contained in the room or vessel has been saturated with water. The point at which this saturation occurs depends chiefly upon the temperature of the atmosphere. On a warm day the air is dry, not because there is little or no water present in it, but because, owing to its high temperature, it is capable of receiving and retaining a considerable additional quantity of moisture. In other words, air and everything else is capable of holding in its substance a certain definite quantity of water. If the amount of water present is so great that it appears in the form of moisture, or if the proportion even approaches the limit which the body is capable of holding even before it becomes evident to our senses, we call it damp. Absolute dryness then, is to be carefully avoided, and so is that degree of moistness in which objects part easily with the water which they hold. The evil effects of the first condition are to be seen in the dry and oppressive condition of an atmosphere heated by a stove or furnace; the results of an excess in the opposite direction are most clearly seen in unwholesome basements, and damp and malarious cellars. The best means of determining and regulating the amount of moisture in our dwellings is an important one.

NATURAL HISTORY NOTES.

UNDER AN OAK.

(BY BIS COBRA.)



DREAMILY I with my head pillowed on the soft and pleasant-smelling moss on the projecting root of a venerable oak-tree, and gazed up into the deep green branches to see what I could see.

A pretty little grayish-green ringdove flitted about from bough to bough with anxious twitterings. I guessed its nest lay hidden somewhere above me from the way the bird carefully pretended it had no particular business on that particular oak. The ringdove begins to build early in March, and the young ones are able to fly late in June. It was now the sixth of April. The eggs, therefore, could not have been hatched as yet.

I was watching the bird listlessly with half-closed eyes, when, with the whirring sound of the wings peculiar to the creature, a large blue-jay alighted on a branch just above my head. I could almost have touched it with my outstretched hand, if I had cared to do so. It perched there turning its head from side to side, with the air of a crow looking at a slug, while the ringdove nearly went frantic with fear. For of all enemies to the eggs and young of little birds, the blue-jay is the most to be dreaded.

After a little while the jay flew up into one of the higher branches. I sat up so as to be able to see better. Nicely hidden away between the two forks of some twigs was the ringdove's nest. On the edge of it was seated the blue-jay with an egg between its beak.

I half picked up a stone, and then dropped it again. What was the good of my interfering? The jay was hungry, why shouldn't it eat the eggs of the dove? If the dove had been a pigeon I might have shot the bird myself and eaten it, instead of being merely content with the eggs. No one who has even superficially observed animal life can have failed to be struck with that remorseless rule of Nature: The strong shall prey on the weak. It is absurd for men to talk about the cruelty of the jay or the hawk, when they are guilty themselves.

So I left the jay to go on with its meal undisturbed. When it had finished, it flew heavily away, with the dove after it uttering pitiable little cries.

While watching the flight of the two birds a loud humming sound at my back caught my ear. Turning hastily round I saw a gorgeous green beetle just settling on a bush near me. When I say the beetle was green, I mean that the prevailing colour was green. The insect seemed really sheathed in a bright polished metallic copper which glistened into many hues as the sun shone upon it. Never before had I seen such a magnificent beetle. It crept on to the under side of a twig and remained there holding on with its legs like a bat.

I debated within myself as to the best method of capturing the creature. I had no sort of net with me. At length I decided to try and knock it down headlong with my handkerchief, and grab it up before it had time to use its wings.

Slowly I crawled towards the twig, like a cat after a sparrow. The beetle hung on in blissful repose. Suddenly there was the flash of a white handkerchief in the air, and before the insect could realize what had happened, it found itself struggling and kicking wildly, securely caught between my forefinger and thumb.

The best way of catching an insect that bites is to hold it tightly between the thumb and forefinger, just below the neck. In this way it can neither twist round its neck to inflict a nip, nor can it scratch and pull with its legs, for the legs have nothing to hold on to.

Taking a bit of thin twine, with which I am always provided, from my pocket, I wound it round and round the beetle, which protested as much as it could. When the creature was tied up like a mummy, unable either to walk or fly, I threw it down on the ground. When I go home it shall go with me, and, after being untied and slain, it shall have the honour of forming a central figure in my collection of beetles.

A most funny looking little insect now descended by means of a long thread from the oak-tree above, on to the cuff of my coat. So minute that I could barely see it. It had an outer casing of some sort of an almost transparent jelly-looking substance, and inside this jelly was imbedded what looked like not one but two very, very tiny black slugs. The heads being on either end, and the tails in the middle very curious. How I wished I had a microscope! It moved along very slowly—now one way, now another—as if the two creatures inside each wanted to go its own way. The jelly substance left a track behind it like the track of a snail. I was afraid to touch it, for fear it should melt to nothing underneath my rough fingers. Finally the creature managed to get off my cuff on to some dried oak leaves, underneath which it was soon lost to view.

At my foot there lay a big stone covered with moss and lichen. It is often great fun to turn these old stones over, and watch the fight of the inhabitants. There are always some sort of inhabitants underneath them. What scurryings to and fro! What hidings! What hasty removals of young and other property! What anxious consultations of the gray beards! And, altogether, what a scene of indescribable confusion and hurry!

I went up to the stone, and, after some difficulty and a good deal of perspiration, I managed to turn it over. There was only one inhabitant, and at the sight of him I started back. A great red, or rather pink, scorpion lay there torpid and heavy, and altogether disinclined to move, trusting, I suppose, to his sting to protect him. But I soon broke a stick and kneaded him into nothingness.

These light coloured scorpions are not so much to be dreaded as the black ones, but their bite is by no means to be laughed at. I know of one instance at least in which a person stung by one of them was rendered totally blind. While on the subject of stings, I may mention a very good cure for them. Apply a quantity of sweet oil to the part stung, and then hold it over a candle or a lamp, as the oil dries the sting will, with a little gentle pressure around it, come out of his own accord.

The battered corpse of the scorpion was soon surrounded by a great colony of red ants. Of all the different sorts of ants, the red ant is the most indefatigable. It scents the carrion from afar, and while the black and white and grey and yellow ants are debating as to whether the game is worth the candle, the red ant has walked off with it. But ants—red ants and all—are really, it seems to me, greatly over-praised insects. They afford a terrible example of misapplied energy. For instance, in this very case of the dead scorpion: After a great deal of unnecessary pulling and pushing about, one hundred ants managed to raise the body, and then they immediately proceeded to carry it in a direction diametrically opposite to their own hole, which I had discovered lay inside a withered branch of the tree I was under. Of course, the ants may have had another hole, but I do not think they had.

But the ants were not allowed to go very far with their game, for a black and white bush-chat, which had been sitting for some time on a thornbush wagging its tail at me, suddenly flew down upon them, seized hold of the scorpion with the ants clinging to it, and then flew back to its perch, where it gobbled up ants and all.

I like the bush-chat. There is something very cheerful about the bird. When it is not eating, it is generally perched on some twig, singing, or rather trying to sing; for its voice is not particularly sweet. It has a peculiar habit of raising and depressing its head and tail alternately as the notes go high or low. I have noticed this habit, too, in the water wagtail. But the wagtail goes through this performance in a most lugubrious and solemn fashion, like one performing a displeasing task.

Presently the bush-chat was joined by its mate. The female bird is much smaller than the male, and has none of the latter's vivid black and white shades, being of a dull brown colour. The two sat as close to each other as a pair of turtle doves, and bowed and scraped together like a couple of toy figures.

The bush-chat makes a most beautiful nest. In shape and size the nest is not unlike that of most little birds, being round and cup-shaped. But the materials of which it is composed are the finest of their sort. You see no huge twigs sticking out of the nest, no lumps of sheep's wool just carelessly chucked in. The nest is made of the tenderest fibres, and soft horse-hair is only used to line the inside with. And everything is finished off most delicately. The eggs are from four to five in number, of a pinkish white colour with black spots, and taper at one end to a rather fine point.

The bush-chat breeds very early in the season, the female beginning often to lay before the beginning of March. Consequently, if the winter be a late one, the little brood is often destroyed by the cold. I have often wondered why the parent birds do not learn, by experience, that it is a foolish thing to begin breeding so early. The old, old story,—'Marry in haste, repent at leisure.'

But while I have been watching the birds the sun has been slowly sinking. No sooner does the orb dip behind yon western hill, then the "Afternoon hum" begins. The night insects are coming out, therefore it is time for two-legged day insects to be making tracks.

I picked up the unfortunate green beetle, put it in my pocket, and turned my face towards home.

A TRUE BALLAD OF THE AMERICAN CIVIL WAR.

The lines of fateful war were set
In battle's grim array,
And ceaseless fell the shot and shell
Through all the ghastly day.

On either side the army stretched
Along the meadows green;
And broad and white, from left to right,
The roadway wound between.

The air was blind with throbbing heat,
And, as the sun rose higher,
The summer blue of heaven shone through
A haze of tropic fire.

The curving road was darked with gore,
And every upturned clod
Was stained with blood, whose livid flood
Soaked all the grassy sod.

The shrieks and groans of dying men
Rang through the tumult's roar,
Till one whose ear was forced to hear
Their cries could bear no more.

He rushed to where the General stood:
"I crave your leave to bring,
For men who die in agony,
Water, from yonder spring.

"They moan and shriek with maddening
thirst,
They writhe in their despair.
While I might take the draught to slake
The torture that they bear."

"Nay, Sergeant Kirkland, you will get
A bullet through your head,
And, foolish lad, you will but add
Another to the dead."

"Not so: I pray you let me go
Without a word of chafe,
For God, whose care is everywhere,
I think, will keep me safe."

"Why will you ask my leave to go
Where not a living man
Could meet the strife secure of life,
But He may keep who can—?"

He sprang with fiery haste away,
But in a moment more,
The stalwart form, all flushed and warm,
Was back within the door.

He flung a handkerchief abroad:
"Have I your leave to wave
This signal white, amid the fight,
As sign I come to save?"

"No, no;" the General shook his head,
Betwixt a sigh and groan;
"You choose to go, brave fellow so
The risk must be your own."

The thundering guns still rent the air,
The battle raged as hot,
And all around the sodden ground
Was plowed with hissing shot.

Yet straight between the belching lines,
Leaping the road-side wall,
Right through the clang the Sergeant sprang,
And dared to face it all.

In either steadfast hand he held
A brimming water can,
Which through the crash of cannon flash
He bore from man to man.

With blessed draughts the fainting soul
He roused to life again,
And parting lips were soothed with sips
That dull the stress of pain.

He raised the dying to his knee
From off the weltering sod,
And with a word none other heard
Dismissed his soul to God.

It mattered not as on he moved
Where dead and wounded lay,
If tried and true they wore the blue,
Or true and tried the gray.

And as to many a gasping mouth
He held a full canteen,
His hurrying from amid the storm
Of raking shot was seen.

A gradual lull hushed down the roar,
A pause fell on the strife,
As though it were foul wrong to dare
To touch so charmed a life.

And slow and slower boomed the guns
Along each watching line,
As to and fro they saw him go
On errand so divine,

And when the sultry hours were passed,
And 'mid the wounded none
Had missed unquaffed the healing draught,
And Kirkland's work was done.

A shout that rent the very heavens
From either army rang,
As o'er the wall, alert and tall,
The Sergeant lightly sprang.

And not a man among the ranks
Who saw the odds he braved,
In blue or gray, but seemed to say:
"Thank God, that he is saved!"

EDITOR'S EASY CHAIR.



TYPES OF WOMANHOOD.

lady friend writes :—It is said that woman is the most beautiful work of the Great Creator, placed in the world to be the help and comfort of manhood in times of misfortune and trouble, to soothe his aching, to bind up the broken-heart, and to raise the bowed head over which the storms of adversity have passed—such is woman's mission on earth !

The highest type of women existed long ago in the distant ages of time, in the days of far off Bethlehem. She was the Virgin Mary, Mother of our Lord. Can you find a higher type of womanhood ? Good, noble, pious and chaste : she was all that a woman ought to be ; the emblem of purity, who has raised womankind in the eyes of the whole world. Perfect woman is rarer than the rarest gem ; she is only to be met with in the realms of fiction, or seen through the hazy shadows of a dream. But seldom is a perfect woman found as an embodiment of flesh and blood.

Here is a type of ideal womanhood : take, for instance, a girl ready to emerge into womanhood, as the butterfly out of its chrysalis, anxiously looking out to see what there is in store for her behind the veil which hides the distant future. She is sweet, kind, loving to all around her, ever ready to befriend the helpless, succour the needy, sympathize with the sorrowful, instruct the ignorant, advise the erring. In the time of trouble, when the dark shadows of adversity gather round her home, her brothers and sisters go to her for consolation ; she is their stay and comfort. Her brow is unruffled, she is all sunshine, carrying happiness wherever she goes ; her presence chases away every sorrow. She is like the spirit of light ; she is never found spending her time in frivolous amusements or indulging in those "thousand flirtations which deaden the romance of the heart." In time of sickness she makes a skilful nurse whose gentle hand soothes the aching brow. Her great aim in life is to make her home a Paradise on earth, which may be to the busy workers of her home circle a haven of peace and joy when they return to it. By nature she has a noble and truthful mind, which would never stoop to deceive ; physically a little timid, but staunch and true where honour bars the way ; moreover she has that virtue the brightest jewel in a woman's crown—Modesty—without which no woman is perfect ; she resembles the modest violet which blossoms in the shade and is only found out by its sweet perfume wafted on the summer air like the praises of a virtuous woman. Modesty, which is said to be a maiden's only safeguard, and when the possessor of it loses it, the greatest charm in womanhood hath

fled. This is in very truth a perfect woman, whose time is spent in doing good works, will spread a halo round her head whilst living, will waft her praises when she is numbered with the dead.

Another woman is one whose life is spent in mental culture carried to such a pitch as to render her a blue-stocking or a petticoated philosopher; her time is taken up in solving abstruse scientific problems, or in over-reaching manhood's ways; she tries to be man's equal, or man's superior; aspiring to every thing, achieving nothing. She is one of those strong-minded, emancipated women who despise matrimony. If any man would seek her for his wife, he would find her to be a formidable Minerva whose first question would be "Have you taken your University degree?"

Here is another type: She is one of those frivolous beings who fritters away her golden hours in going to balls and parties, and who likes to have a train of young men dangling after her whispering soft 'nothing' in her ear. 'The Alpha and Omega of her life' is dress and frivolous pleasures. She is too lazy for work. If she reads, it is the most trashy of trashy novels; the heat renders her incapable and apathetic. The members of her family must minister unto her, while she lies indolently in bed.

We will take leave of this type of womanhood. Here is another: In creed she may be a Salvationist, a Freethinker, or a believer in the Darwin theory; in politics, a Conservative or a Nihilist; she is an anomalous being or a man-woman; her highest aim in life is to copy the questionable and most undesirable ways of men; she talks slang and smokes cigars, and spends most of her time in the company of dogs and horses; she says she is a Radical when talking politics, though she does not know the meaning of the term. She takes an active part in all manly sports when she should be at home mending socks; she imitates the virile style of dress, and she swears by the supreme god Jupiter. She is never so happy as when she is surrounded by young men whose conversation consists chiefly of dogs and horses, adorned with slangy phrases. Instead of helping her mother to keep the house neat and tidy, she is out playing cricket with her brother. It is easier for her to climb a five-barred gate than to boil a potato or make a cup of tea. She is better able to spin a top, or run a hoop, and to climb trees when no one is looking. Young men, on a first introduction to her, would take her to be a College acquaintance, so off-hand is her manner of speaking to them.

Next we come to the Salvationist. Can a woman aspire to a higher calling? She has left her home in the far off West to come to the scorching plains of India to preach the Gospel to those groping in heathen darkness. We behold her arrayed in a garb of varied hue, traversing beneath the burning Indian skies, or at evening she stands with the last rays of the setting sun casting a halo of radiant glory round her, as she tells the old, old story of one whose blessed footstep trod old Asia's shores so many hundred years ago. She goes through the wide world preaching the blessed tidings of the Gospel, heedless of the smile of the sceptic or sneer of the cynic. How laudable is the calling of this woman, who has given up every thing in the world to guide the wanderer into the paths of truth, and to preach the Gospel to the heathen. How meekly she bears the scorn and derision of the worldlings whose shallow

soul will not believe in the upright integrity and single-heartedness of this woman.

My last type is the 'busy bee gathering honey while the sun shines,' or like the 'ant laying by its store of grain for a rainy day.' Most of her time is spent in storing up knowledge for the benefit of her mind, and working while its day; 'for the night cometh when no man can work.' How many thousands have passed away from this world without leaving any 'foot-prints on the sands of time,' or without doing a single good deed by which she may be remembered after her spirit has left its abode of clay. But the 'busy bee' is not one of these; she has more concern for her spiritual welfare; she is a comfort and solace to all around her; her brothers and sisters go to her for aid and counsel; she is like the angel of peace spreading over her hearth; she is the sunshine of her home, the support and stay of her invalided grandmother; the sight of her smiling face chaseth away gloom and sorrow from the heart; she is in very truth a rare gem, whose intrinsic value is beyond all price; she is ever charitable to the poor and needy, and is always willing to soothe the sorrows of the afflicted. She is not one of those strong-minded intellectual women, who look down upon the study of domestic economy, and whose sole aim in life is to usurp man's sphere, our 'busy bee' is happy in her own sphere—'Home, sweet Home,' and her only desire is to 'study household goods.'

Woman is the lesser man, and all her passions matched with mine,
Are as moonlight unto sunshine and as water unto mind.

Tennyson.

MONACO.

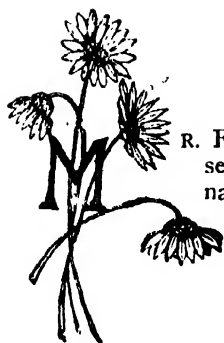
On the 16th of April next the great gambling establishment at Monaco will close its doors,—let us hope for ever. On that day the agreement between the Government of the Principality and the world-famed hell of Monte Carlo expires, and there is, we believe, not the slightest chance of its being renewed. We are told that it was the knowledge of the present ruler's determined attitude in the matter, which has alone prevented the French government from availing itself of its position as suzerain power to take immediate steps toward the suppression of this plague-spot of Europe—steps which both President Grevy and President Carnot have repeatedly been urged to adopt, not only by popular sentiment, but also by nearly every one of the great monarchies of the Old World. Russia, Germany, Italy, and Great Britain have been particularly pressing in their applications to the Paris government to put a stop to the scandal; and it may safely be averred that Queen Victoria would never have condescended to pay such marked and gracious attention during her stay at Grasse to the Prince and Princess of Monaco had she not received satisfactory assurances concerning the approaching close of the gambling palace at Monte Carlo. On the occasion of her former stays in the south of France the strict and stern old lady had indignantly refused the bouquets and baskets of flowers sent to her by the late Prince Charles III., whereas last spring she not only received the reigning Prince and Princess at Grasse with all the honors due to sovereigns, but even went so far as to send, first, her ambassador, Earl Lytton, and a day later her daughter, Princess Beatrice, with Prince Battenberg, to return the visit at Monte Carlo.

Prince Albert, whose marriage a couple of years ago with the enormously wealthy widow, the Duchesse de Richelieu, a daughter of the New Orleans and Parisian banker Heine, has enabled him to dispense with the £125,000 annually contributed toward the civil list of the sovereign of Monaco by the management of the Monte Carlo Casino, has already notified the latter that he has no intention of renewing the lease, and accordingly M. Blanc, and his two brothers-in-law, "Prince" Roland Bonaparte and Prince Constantine Radziwoile, who are the principal shareholders of the Casino company, have already perfected their arrangements for the transfer of their operations to Andorra, the little Pyrenean republic on the Franco-Spanish frontier line. Under their auspices a company entitled the "Cercle des Etrangers d'Andorra" (the "Stranger's Club of Andorra") has been successfully floated at Paris, and no less than forty thousand £20 shares have already been disposed of at a heavy premium. All the plans for the new buildings at Andorra have been perfected, and to those who are acquainted with the French Riviera it may be of interest to learn that the new theatre designed for Andorra is an exact reproduction of the theatre on the Jetty promenade at Nice.

It was not until after much hesitation that the syndicate owning the Monte Carlo Casino concession decided upon Andorra as the scene of their future operations. They had previously endeavored to secure an abiding place for their roulette, their trente-et-quarante, and their rouge-et-noir tables in several other parts of Europe—including Valduz, the capital of the little principality of Liechtenstein; San Marino, the tiny republic in northern Italy; at Saxonles-Bains; at Aix-les-Bains; and even at Belgrade and Sofia. Everywhere, however, their overtures were rejected, and after discussing the rival merits of Tangier and Andorra, they finally decided in favor of the latter.

Andorra has been an independent republic since the days of Charlemagne, who, in the year 778, confirmed the rights, privileges, and freedom of "the valleys and sovereignties of Andorra." The territory comprises about 160 square miles, and the population numbers about 6,000. It is governed by a council of twenty-four members, elected for four years by four heads of families in each parish. The council elect a first and second syndic, or mayor, to preside and to wield the executive power. The costume of these two dignitaries is of a character to strike awe into the hearts of those who may eventually visit the little republic for the purpose of trying their luck at the gambling-tables. It is composed of silver-buckled shoes, blue stockings, red garters, gray knee-breeches, broad scarlet sash, black cloak, catalan cap, and a gigantic black cocked hat perched on top of the cap. They take their oath of office by laying their left hand on the sacred "Books of the Valley"—the *Digestium* and the *Politar*—in which the history, the traditions, the laws, and the customs of the ancient republic are hopelessly jumbled together. The primitive character of the people may be estimated by the fact that the salary and allowances of the first syndic—the chief magistrate of the republic—amount to the magnificent sum of sixty pesetas, or about Rs. 30 per annum.

TOPICS OF THE MONTH.



R. FREEMAN HAS BEEN SETTING FORTH THE ONE sentimental argument against Imperial Federation, namely, that England proper would be swamped in a *Pari-Britannic* union. Kindly as one feels towards Australians and Canadians, one would not quite like to see their votes deciding questions even of Imperial policy, against the opinion of Kent, Middlesex and Surrey. Very much less would one be pleased to see a

Bengali party holding the balance of power in a Federal Parliament. Say the word "India," indeed, and you sum up the sentimental and the business argument against Federation. For India will soon cease to stand to us in the relation of a lordship absolutely governed from Westminster. We allow complete liberty to the native press, which it uses by no means to thank us; we have conceded some measure of local Government, with which, in the case of Ireland, Mr. Parnell once said he could get every thing else he wanted; and we are increasing native representation on the Viceroy's Council. True it is that the natives rarely embarrass their English colleagues; on the contrary, they are most accommodating. But that is always so with people gradually and, so to say, probationally admitted to a share of power. When borough deputies were first summoned to the Parliaments of the Plantagenets, they proved extremely manageable—more so than the Barons; but once their position was definitely established, we know what happened. We may yet live to see a brief reaction towards more parental methods of government for India. Our next Liberal Ministry may devise some light muzzle for vernacular journalism, although Lord Cross would not dream of attempting it; but the inevitable march of events will recommence from the moment the reaction has spent its force. Now with a powerful, autonomous India of the not very remote future, how are we to arrange federation in a way that will leave the English masters of their own destinies? The line between federal and state rights is far from easy to draw with distinctness. In America it could only be settled by a four years' civil war, which has, in effect, left the federal authority supreme. It amounts to this,—that if Englishmen really mean to be citizens of a world-wide Empire, they will have to merge a part of their nationality (their intense pride of race) in a sort of cosmopolitan imperialism. Even Rome, with her strong military organization could not lord it for ever over her provinces; had to level them all up as we should now say, by granting the franchise (and the Roman name) to successive cities and nations until a Cilician Jew could claim to be a Roman and exact the privileges of his status before the Empire had subsisted a century.

WE WROTE, IN OUR LATE ISSUE, REGARDING THE RUMOUR'D occupation of Lhuang Phrabang by the French. We said a month ago that in England neither the "buffer state" nor the "neutral zone" find any favor in Europe. Further, there are only two Powers that have any interest in the autonomy of Siam. Recently rumour has been in circulation that the Czar has undertaken to arbitrate. We

are inclined to entirely discredit the rumour. We do not think that the Siamese can so far forget themselves as in return to their hospitality to the Czarewitch to demand anything in return. The Russian Press entirely discredits this rumour. Whatever dispute remains to be settled between France and Siam has *not* got to be settled between France and Siam, but between France and England. Lord Lamington recently suggested that the Great Powers should guarantee the autonomy of Siam, if Siam persists in carrying on the well-worn Oriental policy of coquetting first with one Power, and then with the other, varying the game by endeavouring to make a catspaw of a third Power ; but it cannot be done.

Speeches speaking peace are rife throughout Europe. We don't place much account on these speeches. We think they are made because one is afraid and t'other doesn't dare to come on. England is certainly ready to perform any duties she may be called upon to execute. Russia's acknowledgment that they haven't got a single ship to spare for the Chinese operations, speaks badly for the naval force of that country ; while the French Admiral in visiting our shores the other day, openly acknowledged that the French fleet in material and in men was inferior to the British fleet ; and he further said that no possible combination of foreign fleets could lick the English if they tried. For our own part we anticipate no war. That is to say, no big war. We might have an outbreak in India any day, but that can be settled up in a couple of days. Russia is bankrupt—dependent chiefly on Germany for the loan of five million sterling. France will not repeat "*a la Berlin*." As for Italy that country's interests lie with England. We do not think that England will ever try to take a hand in breaking up the Triple Alliance. But if it is forced upon her, we shall probably see England and Italy commanding the Baltic and Mediterranean.

SO MUCH HAS BEEN WRITTEN, AND SAID, OF LATE REGARDING gold mining in Bengal, that, under ordinary circumstances we should hesitate to venture any decided opinion on the subject. We think, however, that intending investors will find the Kalyanpur-Bihar Gold Mining Company worth attention. We dropped into the office of the Managing Agents—Messrs. Raymond and Purdy—a few days ago, and inspected three consignments of quartz, showing visible gold,—plainly to be seen with the naked eye. At the lowest estimate the gold, as shown in the samples should average quite 50 ounces to the ton of quartz. Mr. Purdy, who is a mining scientist of large experience has taken up the sole management of the mines, and he will devote the whole of his time to the development of the property, which has, so far, proved itself to be the best mining property in Bengal. The samples sent down by Mr. Purdy have been on view for some days past, at the offices of the Managing Agents in Wellesley Place. It says much for the stability of the concern that within three hours on one day, upwards of five lakhs worth of shares were bespoken. We must congratulate the Managing Agents on their success, so far. They are the youngest firm in the gold-mining line, and certainly the most promising. We trust that they will be fortunate enough to justify the confidence placed in them by the public and some of the leading mercantile firms in India. 4

28th September 1891.

APEX.

THE INDIAN EMPIRE.

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*HYPNOTISM.**



SUBJECT that is at present attracting an immense amount of attention, both at home and abroad, is that of Hypnotism, or sleep provoked by artificial influences. The moment a crime is committed the pet theory of hypnotism and suggestion is invoked, destroying and drowning all judgment. It is loudly asserted that free will is an empty word, and that the hypnotized subject is a mere automaton. The author of the book under notice undertakes to demonstrate that free-will is not a mere idle word, and that, notwithstanding everything said to the contrary, free-will remains intact. He shows the almost impossibility that governs the differentiation of real hypnotism and simulated hypnotism, and demonstrates, to his own satisfaction at least, how facts can be differently interpreted; how scientific theories, which only group facts, are nothing else than mnemonical methods; how, in fact, nothing is absolute in the domain of positive science.

Hypnotism is as old as the world, for although its name is of recent date, it is no other than the scientific word for magnetism. A state of trance was known even to the Egyptians, for Diodorus writes: "The Egyptian priests were wont to assert that Isis deigned to manifest herself to men during their sleep to inform them of the different remedies and methods of healing; and that by implicitly following her counsels, patients despaired of by the doctors were saved." The history of the middle ages is full of similar narratives. Cardan, for instance, alludes to a state of insensibility produced by a magnet; Paracelsus, Fludd, Kircher, Maxwell, and others assert the theory of double magnetism, and demonstrate that the magnetic fluid of a healthy body attracts the weaker and deteriorated magnet of an unhealthy one. As a matter of fact a number of more or less hazy works have been handed down to posterity showing that an irresistible attraction draws us towards the study of the occult sciences at the close of each century. The close of the eighteenth century produced Mesmer, and now, towards the close of the nineteenth century, his name is being rehabilitated, and Mesmer, the charlatan of former days, is proclaimed the forerunner of scientific magnetism.

* *Hypnotism*. By DOCTOR FOVEAN DE COURMELLES, Translated by LAURA ENSOR : (London ; George Routledge & Son, Limited.)

It was not, however, until the year 1825—when Dr. Foissac persuaded the Academy of Medicine to take up the subject—that any general attempt appears to have been made to introduce the study of magnetism as a serious branch of psychology and natural history. In their declaration the members of the Commission wrote that:—"Considered either as an agent of physiological phenomena, or as a curative means, magnetism must be allotted a place in medical knowledge; consequently doctors alone must make use of it, or, at least, superintend its application." But the Academy refused to commit itself to these views, and the year 1837 found the members still in search of the miraculous, and failing to find it, they concluded on the non-existence of magnetism.

Some of the earlier experiments in magnetism have been somewhat peculiar. For instance in 1837, Baron du Potet invented the magic mirror which convulsed so many people. This famous magnetiser first traced on the floor, with a bit of charcoal, a complete and blackened circle. The subject drew near and then receded, looking alternately at the spectators and then at the circle. "Soon" writes du Potet, "the effect is visible. The subject's head is lowered, his whole person becomes uneasy, he turns round and round the circle without taking his eyes off it, then bends lower, rises again, draws back a few steps, then advances again, frowns, looks morose and gloomy, and breaths heavily. The most curious scene then follows. The subject, without doubt, sees images reflected in the mirror; for his perturbation, his emotion, his strange motions, his sobs, tears, anger, despair and fury all prove the disorder and agitation of his mind. For him it is no dream nor nightmare; the apparitions are realities, and a series of future events represented by figures and signs that he understands, unfold themselves before him, filling him in turn with joy or sadness as they pass before his eyes. Soon he is seized with a transport of frenzy, strives to lay hold of the phantoms, and dashing forward, stamps with his foot on the blackened circle. The dust flies up, and the operator now approaches and puts an end to this dramatic performance, so full of excitement and terror."

There are so many wondrous appearances in nature for which science and philosophy cannot even now account, that it is not surprising that, when natural laws were less understood, men should have attributed to supernatural agency, every appearance which they could not otherwise explain. Thus the author of the work under review tells us that, in all the incidents above referred to, du Potet fancied he saw magic; but hypnotism obtained by physical means brings about the same results. It was about this same period that Spiritism, (table-turning, spirit-rapping, &c.), made its appearance, and enthusiasm became so universal, that the new ideas found disciples even amongst the clergy, and an encyclical letter from the Holy Inquisition was addressed to the Roman Catholic Bishops warning them against the errors and dangers of magnetism. Had these phenomena occurred in the middle ages, they would probably have been attributed to witchcraft, and the stake would have been the penalty; but science has lifted the veil, and rolled away all the fantastic horrors in which our remote forefathers shrouded similar cases.

We have shown briefly how magnetism rose, prospered, and fell without ever having been submitted to a thorough scientific scrutiny

and although the hypnotism of the present day is little more than the animal magnetism of a former period, the rehabilitation that it is now undergoing would have been almost impossible under its previous title. Indeed, the questionable practices of those who carefully preserved the vital spark of magnetism were calculated to discredit it. The earlier discovery was, as we have pointed out, due to Mesmer; the second is due to Dr. James Braid, who did not seek to deny magnetism, although he considered *mesmerism* and hypnotism to be two distinct agents. In a work that he published under the title of "Neurypnology" he writes: "For a long time I believed that the phenomena produced by my experiments and those produced by the mesmerist to be identical; and after a close investigation I have come to the conclusion that there is a certain analogy in the effects produced upon the nervous system. Nevertheless, and judging from the effects magnetizers declare they have obtained in certain cases, there seems to be enough differentia to lead one to consider hypnotism and mesmerism as two distinct agents."

The words, Hypnotism, Magnetism, and Mesmerism being so freely introduced, and bearing various shades of meaning, may lead to some confusion of ideas; we cannot therefore do better than quote a passage from the book for the purpose of explanation of seeming contradictions in terms. Dr. Braid was the forerunner of our actual hypnotizers, and we are told that his discovery was made in the following manner:—In November 1841, he witnessed a public experiment made by Monsieur Lafontaine, a Swiss magnetizer. He thought the whole thing a comedy. A week after he attended a second exhibition, saw that the patient could not open his eyes, and concluded that this was ascribable to some physical cause. The fixity of gaze must, according to him, exhaust and paralyse the nerve-centres of the eyes and their surroundings. He made a friend look steadily at the neck of a bottle and his own wife look at the ornamentation on the top of a china sugar bowl; sleep was the consequence. Here hypnotism had its origin, and the fact was established that sleep could be induced by physical agents. This, it must be remembered, is the essential difference between these two classes of phenomena; for magnetism supposes a direct action of the magnetizer on the magnetized subject; an action which does not exist in hypnotism. This distinction is not generally made, hence the confusion between the two methods." Whenever the word *hypnotism* is therefore employed, the reader must remember that it is sleep induced by physical agents, that is understood—that is to say, sleep obtained by fixing the gaze on some object, (as Braid discovered) or by some sudden sound, like that of a Chinese gong, (used in the School of the Salpêtrière.) When, on the other hand, the word *magnetism* is employed, it will be understood that reference is made to a subject passing from a waking condition into that of sleep owing to the personal action of the experimentalist on the experimentalized. This explanation is not, however, yet scientifically accepted as an absolute fact; but it must be taken into due consideration independently of the undeniable influence exercised by the imagination, and the frequent and unavoidable intermingling of hypnotic and magnetic actions.

APPEX.

(To be continued.)

A CHAPTER FROM INDIAN COLLIERY LIFE.



LD Cross was a big man, a very big man indeed, not only in his own estimation, but in that also of everyone who had anything to do with him. He was Manager of a Government Colliery in Central India. Perhaps some of my readers will feel disposed to question the greatness of an Indian Colliery Manager, but they will be wrong to do so. In a small place like Banda, where the inhabitants are a simple and, naturally, a timid set, and where the majority earn their livelihood in the pits and in that section of the railway which conveys the coal produce to the main line, a Colliery Manager is, as I have already said, a very big man. He is the *burra sahib* of the place and, in point of importance, takes precedence of the Magistrate, Collector, and, in short, of the whole executive. But when, in addition to his other claims to greatness, nature has favoured him with a stern, dignified countenance, and art furnished him with an eye-glass, and he is uniformly pictured in the mind's eye as having a stout hunting-whip in his hand, and a full *répertoire* of good round oaths at his command, he develops into a veritable demi-god. Cross had all these advantages and developed accordingly. His estimate of native character was a very poor one, and can be fairly gauged from the sentiments expressed in the following dialogue which took place between himself and Mr. Davis, the Mining Engineer, shortly after the latter's first arrival in this country. Mr. Davis was communicating to the Manager a report that had been made to him that morning by the mate (who was a native) when he was interrupted by Cross, who, in a voice of thunder, abruptly burst in with—

"That man's a liar."

"Good Heaven's, sir," exclaimed Davis, "how you startled me! Have you any special reasons for styling the mate a liar?"

"Special reasons be d——d. They are all liars, every one of them. Liars, sir,—born liars!"

"I think it is scarcely fair to include *all* in such a general condemnation. I personally should certainly hesitate to pronounce a man a liar, unless, indeed, I had proved him to be one beyond the shadow of a doubt."

"Enough, man," broke in Cross. "One can see that you are but a fresh importation from the old country. In this infernal place truth and honour are mere names—empty sounds, I assure you; and I'll wager you a dozen of whiskey that before Christmas comes

round you will be of my way of thinking. Tut, man ! Prove them to be liars, did you say ? Egad, the difficulty does not lie that way. You may safely conclude that they *are* liars in the absence of absolute proof to the contrary."

Such was Cross' estimate of native truth and candour ; but he was not a bad fellow at heart, and seldom took advantage of the numerous opportunities that offered of fining or otherwise punishing his trembling subordinates. In spite of his age (he was somewhere on the wrong side of forty), he was a keen sportsman, and the fact was a matter of some congratulation to the small community of Europeans at Banda. Beef and mutton were none too abundant, and of a very indifferent quality, in this station, and the huge joints of wild pig which were regularly sent round on Mondays, with the *burra sahib's salaams*, for distribution among the pit employees by the Manager's *chuprasser*, were very fully appreciated. Monday came to be known as feast-day among the pit hands.

I have no doubt Cross was a good Christian, though he put a very liberal construction on the fourth commandment. You see, there was no church at Banda or things might have been otherwise. As it was, Cross devoted his Sundays to that grand old sport, pig-sticking. Pigs were numerous at Hanging Ghat, a few miles from Banda, and in this happy ground, the doughty Cross and his guests, officers from the military cantonments within a hundred miles of the place, spent his Sundays in a very agreeable and harmless manner ; and thus it was that for one day of the week at least, the small colony of Europeans at Banda was independent of the local butcher.

Davis, the Mining Engineer, was a different sort of man. Bluff, hearty and above-board, he was the essence of good nature. Uniformly kind and considerate to his subordinates, he was beloved and respected by all. How vividly I can picture him, as I have often seen him, standing in the verandah of his bungalow with a cornet at his lips blowing the "Officers wives for puddin's and pies," &c., and summoning, from the neighbouring bungalows, the guests he had invited during the day to his ever open table. Alas that I should have to record the sad fate that overtook this "nature's gentleman" ! But I am anticipating. There had been a suspicion for some time that all was not right in the pits. Many parts were unaccountably foul, while the heat in some of the galleries was stifling in spite of all efforts at ventilation. I should perhaps here state that the second seam of coal was being worked at a depth of 360 feet from the pit-head. The furnaces were carefully tended and there was, therefore, a good draught, and the current of air from the down-cast or pumping shaft was continuous, and sufficient for the ventilation of the workings, though these were extensive. All hands anticipated a catastrophe, the precise nature of which, however, none could divine. It could not be an explosion, for the pits were free from explosive gases ; so much so, indeed, that naked lights were invariably used underground. Matters grew from bad to worse daily, and every one was filled with an undefinable fear. Large bodies of cutters struck, and nothing could induce them to resume work. The pits were all but deserted. Davis worked like a horse and was below for hours daily, both with a view to stimulating those who were working, to continue doing so, and to encouraging those who had

struck, to rejoin. It was at this juncture that one day the men working a cross-cut off the Main South Level reported to the underlooker, one Mr. Hartley, that the roof-coal at the extremity of the "drive" they were working was very hot, and that they, in consequence, feared to continue cutting. Hartley accompanied the men to the spot indicated, and found that the coal for about four feet along the roof of the gallery was indeed so hot as to indicate the presence of fire within a few inches of the surface. The Mining Engineer was communicated with, without delay, and was on the spot shortly after. A consultation now followed as to what should be done under the circumstances. The difficulty of course must be met, but to be met effectually, the exact nature and extent of the difficulty must be first ascertained. Davis decided that the cutting should be proceeded with, and the fire, if fire there was, be exposed, and then cut off from the surrounding works. Hartley accordingly took a pick from one of the cutters standing by and began chipping. He had scarcely struck thrice when the pick sank into the yielding coal and the fire was exposed to view. Yes, the pit was on fire. There was the evidence of it. Only one small lurid patch of glowing red, but how significant! Who could tell the extent of the burning mass behind? The hole was at once patched up with clay and steps taken to isolate the fire from the rest of the workings. All the approaches to the seat of the fire were, therefore, walled up, and the walls lined with zinc. This averted the evil for a time, but, as was expected, not for long. The fire again showed, after a fortnight, in another direction, and also crept over the walls. New walls were now erected where necessary, the floor and roof coal of the galleries being first cut away, so as to permit of the walls extending from the stratum of stone or shale below to that above the bed of coal. This second outburst of the fire being successfully checked, work went on in very much the same manner as before, and days, weeks and months elapsed without anything out of the common occurring. One afternoon, however, in the early part of October, a gang of twelve men who were working in the vicinity of the fire in No. 2 Pit, heard a rushing sound as of a strong current of air, and a moment later half the lights, those placed on and a little above the floor, were extinguished. The men, instinctively conscious of danger, rushed for the up-cast shaft and shouted with fright as they ran. In an instant there was confusion in the pit. A general rush was made from all directions towards the shaft. The bell was rung desperately by a dozen pairs of despairing hands. The engineman at the pit-head responded, and the first cage brought up perhaps a little short of a score of cutters, all huddled together in the small accommodation afforded by the cage. These men could scarcely say definitely what had taken place below. They felt now that they were above ground, and out of danger, very much as though they had made fools of themselves. However, the bell continued ringing incessantly, and the cage was lowered again and brought up a second batch of cutters, who reported that the whole pit was on fire below. Of course, this was an exaggeration. By this time the underlookers and the Mining Engineer were at the pit-head, and the work of rescue began in earnest. Cage after cage of men was rapidly drawn up, till there remained, apparently, no more, below; but on marshalling the men, it was

found that nine out of the twelve engaged near the fire at the time of the accident were missing. One of the underlookers volunteered to go below and look for the missing men, and the colliery doctor was summoned to be in attendance at the pit-head. Ten minutes had elapsed and no communication had as yet been received from the underlooker who had gone down to the rescue of the men. Davis could bear the suspense no longer, and signified his intention of going down; but Hartley begged to be allowed to go first. Down he accordingly went, and after six or eight minutes the signal was received to "wind up." Hartley had succeeded in finding the underlooker and one of the cutters. Both men were brought to the surface in an unconscious state, but were, happily, revived after a short time. Hartley went down three times after this, but succeeded in rescuing only one more man. Volumes of smoke now rolled up and out of the shaft as though it had been a huge chimney, and it was found impossible to attempt the descent. What would become, what *had* become of the men still below? The thought was sickening. There was an underground communication connecting No. 4 Pit with No. 2. Davis and Hartley with half-a-dozen other volunteers descended No. 4 Pit, and proceeded along the gallery connecting the two pits till they arrived at the scene of the accident. The air here was so foul that the lights had to be held breast-high to prevent them from being extinguished. One more man was found, but it was supposed that his life was extinct. He was, however, given in charge of two of the attendants, who were instructed to carry him to No. 4 Pit, and place him in the hands of the doctor without delay. The party then proceeded, but Hartley soon began to experience a ticklish sensation in the throat, and felt dizzy. He informed Davis accordingly, and suggested that they should return to No. 4 Pit. Davis was, however, for going forward. Hartley pointed out to him the folly of doing so. He argued that the men they were in search of must probably by this time be out of the power of human aid to save; but Davis was obstinate. Hartley begged, implored him to return, but to no avail. Davis merely answered thus:

"No, Hartley, I must go forward and do my best to save those poor fellows. It is my duty, and I feel that I am responsible for their lives. I should have closed the pit at any cost. Would to God I had! But you are not feeling well, Hartley. You have already over-exerted yourself; go back and get fresh air. I shall try to reach the shaft of No. 2 Pit and be drawn up that way." With these words he disappeared into the gloom beyond. Hartley dared not follow him to certain death; and was besides already feeling overcome. He, therefore, however reluctantly, retraced his steps, and Davis went on to his doom.

The Mining Engineer's body was recovered three days later in that part of the pit which must have been the foulest at the time of the accident. He was found lying on the body of one of the men he had gone to rescue, with his right arm under the man's body. The foul gas had apparently overcome him at the moment he was in the act of endeavouring to save a fellow creature's life. His body was interred in the small cemetery at Banda, and was followed to the grave by his sorrowing companions. Cross read the burial service on the occasion, and the tears silently coursed down his rugged cheeks as he read. Yes, a tender heart beat under that rugged exterior.

SCIENCE NOTES.



THE FIRST CROSSING OF GREENLAND. *

CHARACTER of the interior of Greenland has long had a special interest for geologists from its bearings on the theory of glacial action, which appears to have been so potent an agent in the moulding of the earth's surface. Nordenskiöld in 1870, and again in 1883, penetrated some distance into the interior on the "Inland Ice," but, in common with others, still adhered to the view that Greenland is not wholly ice-covered. It was to settle this point that Nansen undertook his expedition of 1888, the results of which are embodied in the book under review.

It is impossible to read Nansen's bright narrative without becoming convinced that love of adventure supplied an impulse without which the desire to solve a point mainly interesting to geologists would scarcely have induced the young student of zoology to leave his own studies and incur the hardships and dangers of so arduous an undertaking. Nansen was well-known in his own country as a proficient in the national pastime of "skiløbning"—the art of traversing snow and ice on the long wooden runners known as "ski." The success which attended the use of "ski" in Nordenskiöld's attempt on the Inland Ice in 1883, convinced Nansen that it would be possible for a party of strong and skilful "skilobers" to cross the Inland Ice on their "ski"; each man dragging a light sledge containing the necessary supplies. Funds for the expedition having been obtained, largely through private generosity, Nansen found no difficulty in procuring the co-operation of kindred spirits, imbued with something of the old viking love of adventure, and all, like himself, proficient in the use of "ski." It was thought well to procure the assistance of Laplanders on account of their hardihood and power of enduring cold. The two Laps who completed the party of six undertook the work purely as a matter of business. They proved to be the least useful members of the expedition.

Dr. Nansen gives due prominence in his book to the description of the outfit. "The expedition," he says, "owed its origin entirely to the Norwegian sport of 'skiløbning.' A whole chapter is devoted to this subject, and is among the most instructive in the book. A map is given, showing the enormous extent of country in Northern Europe and Asia in which "ski" are employed. A zoologist feels bound to apply the doctrine of evolution to every problem, and it is ingeniously argued that the primitive method of facilitating progression over snow by means of a wooden board strapped to the foot is susceptible of development in two ways. The first is by

* "The First Crossing of Greenland," by FRIDTJOF NANSEN; translated from the Norwegian by H. M. Gepp.

making the board long and narrow, the final result being the Norwegian "ski." The second method is that of substituting for the board a framework with a network of sinews stretched across, the highest development of this form being the Indian snow-shoe. This latter form is more suitable where the snow is very soft; and the snow-shoes with which the expedition was furnished were, in fact, occasionally, though not often, used in place of the "ski."

Nansen determined to start from the east coast, a method opposed to the traditions of Arctic exploration. One advantage is apparent—namely, that if a start were made from the west, the route must ultimately be retraced. On the other hand, former attempts to effect a landing on the east coast had failed, owing to the fact that the cold polar current brings down a barrier of ice which renders access to the coast almost impossible, even in summer. On July 17th, 1888, the little expedition in their two boats put off from the "Jason" in latitude sixty-five and a half degrees north, confidently expecting to make their way through the floe-ice direct to the shore. This, however, was not to be. The floes jammed; they were compelled to haul their boats up on the ice; and a rapid current carried them southwards; while the parting of the ice and the encroachment of the sea rendered their situation perilous in the extreme. After ten days of terrible anxiety, a fortunate change of conditions brought them close to shore, and a landing was at length effected, but two hundred and forty miles south of the point at which they had aimed. The next fortnight was occupied in working northwards close under the shore, a time of less peril, but of strenuous exertion. An interesting account is given of the meeting with a camp of the heathen Eskimos of the east coast. The Arctic traveller has one advantage over explorers in most parts of the globe—the natives are uniformly friendly. "A smiling face," says Nansen, "is the Eskimo's greeting to a stranger."

On August 15th, being now in latitude sixty-four and a half degrees, it was determined to begin the work of crossing. The boats were abandoned, and the ascent of the eastern slope of the Inland Ice was begun. The ice was intersected by numerous crevasses running generally at right angles to the direction of ascent. The work was exhausting and the danger great, yet no serious accident occurred. "It was singular," the author remarks, "that none of us ever fell through a crevasse further than the armpits." After some days' climbing, the gradient became less steep, and the party found themselves on safer ground. Three days of incessant rain now obliged them to remain idle in their tent. The rest would have been more welcome had not the inexorable leader kept the party on short rations when work was not exacted. The Laps, who thought the outlook very bad, devoutly read their Testament. The Norwegian gentlemen in their sleeping-bag studied the "Nautical Almanac."

The rain having at length ceased, the march was resumed; but by August 26th—altitude six thousand feet—it was apparent that the slowness of their progress hitherto had rendered it impossible to reach Christianshaab before the departure of the last ship for Europe. The course was accordingly altered for the more southerly settlement of Gothaab. Availing themselves of a favorable wind, more rapid progress was made tying the sledges two abreast and sailing. On the 29th of August the wind dropped, and the work of hauling was re-

sumed. On the 31st, land was seen for the last time, from this point the country being completely covered with snow. The character of the coasts of Greenland indicates that the country is as mountainous as Norway. So vast is the accumulation of snow, that, as Nansen has now shown, the valleys are filled by it, and the mountains are buried beneath its smooth surface. For many days the journey was over a horizontal plateau. The progress made was only five to ten miles a day, owing to the difficult nature of the snow. The cold, too, was intense at this altitude of from eight to nearly ten thousand feet—greater, indeed, than has been registered at this time of year in any other part of the globe.

The monotony of this part of the journey seems to have told somewhat on the spirits of the expedition. At this point only does Nansen's story lose something of its singular cheerfulness and elasticity of style. The solution of the problem they had come so far to solve was before their eyes, but "food," he says, "was the axis on which our whole life turned, our ideal of enjoyment was—enough to eat." The ideal was far from being attained on an allowance of one kilo (two and one-fifth pounds) per diem in such an atmosphere and with unremitting toil. By September 11th a fall of the ground was just perceptible; on September 17th, just two months after leaving the "Jason," a snow-bunting was seen, the harbinger of land. The 19th was the most exciting day of the whole journey. The ground was now sloping decidedly to the west; and, a strong easterly gale springing up, the sledges were lashed together, as on a former occasion, and sails hoisted. The violence of the wind rendered the sledges unmanageable, till a device for steering was contrived. A pole was fastened between the sledges, projecting in front, and this was grasped by the steerer, who determined the course of the sledge by the direction in which he turned his "ski." The pace was terrific, and the danger correspondingly great; but the practised "skilöbers" were equal to their task. No accident happened, and the spirits of the party rose with the exhilaration of rapid motion. Towards evening, land was seen in the distance. The descent became steeper; the ice-slope of the western side had been reached; and a sudden exertion of strength and skill by the steersman alone prevented the foremost sledge from falling down a broad crevasse.

More cautious progress was now necessary; but the journey was continued by moonlight, till, finding themselves among a perfect network of crevasses, a halt was at length called, after a run of more than five-and-thirty miles. That night, Nansen and Sverdrup forgot to wind up their watches, a remissness not hard to understand after the strain of such a day. Captain Dietrichson, however, in whose punctual performance of every duty Nansen sees the influence of military training, was not remiss; so that the determinations of longitude were fortunately not thrown out. During four more days the dangers of the western ice-slope were encountered, till, on September 24th, their feet once more felt the springy earth, and the Inland Ice was crossed. The distance from the starting point was about two hundred and fifty miles as the crow flies. They struck the head of a ford, the opening of which is a little to the south of Gøttaab. In the course of a few days a frail boat was constructed from the tent and some willow boughs cut from a thicket. On September 28th, Nansen and Sverdrup—the sailor of the party—embark-

ed, leaving the rest behind in camp with a not too abundant supply of provisions. Gothaab was reached on October 3rd; and shortly afterwards the other members of the expedition were brought to the settlement in boats.

Thus was accomplished the first crossing of Greenland, a great feat, the performance of which cost neither life nor limb. No disagreement marred the life of the comrades, the narrative affording, in this respect, a refreshing contrast to much of the recent literature of travel. As an author, Nansen is as successful as in his other undertakings. His style is vigorous and buoyant, and the diligence with which he used pencil and camera is shown in the work under notice. The translator's work, too, has been well done.

Nansen goes north again next year, and all will wish him success in his second venture.

DYNAMITE GUNS.

It is but recently, comparatively speaking, that the United States Government has paid marked attention to its naval defences, although frequently urged to do so by the American press, which has, time after time, pointed out how completely the seaboard of the country would be at the mercy of an enemy, in the event of a war with any great naval Power, which, while it could bombard the chief ports with impunity, and ultimately force upon the States practically its own terms, would scarcely land troops, and thus give the army a chance of trying conclusions. But to-day, matters have very materially altered, and hardly a mail arrives without bringing news of some new invention or new application and improvement of some old invention, with regard to matters naval. For instance, the recent test of the dynamite guns of the cruiser *Vesuvius* was an event of more than usual interest in naval circles. There is a set aversion among naval officers to the use of dynamite as ammunition. It is regarded as far more revolutionary to the naval profession than the submerged hull and the revolving turret. There was not a naval officer present who witnessed the experiments—and there were twenty or more—who does not speak depreciatingly of the results, notwithstanding the fact that out of fifteen shots made in the two days' practice, six would have been certain to destroy utterly any man-of-war, antique or modern, which might have occupied the places of the targets. As one effective shot is all the *Vesuvius* would want, with three hundred, or even two hundred, pounds of nitro-gelatine, to dispose of the most formidable opponent afloat, it can be figured out, we imagine, by an unprejudiced mathematician that the relative proportion of success and failure in these fifteen shots is considerably in favor of the vessel. The most noteworthy feature of the trial was that it was conspicuously a success in the very feature which was most confidently expected to prove a failure. It had all along been doubted with much seriousness and plausible reasoning that the guns could be properly aimed by the ship's rudder, but the result of two days' practice show a remarkable absence of "lateral deviation," the greatest being thirty yards to the rear of the target that was being towed by the torpedo boat *Cushing*, at the rate of ten miles an hour, across the course of the *Vesuvius*, while the *Vesuvius* herself was running at the rate of seventeen miles on a circle which kept her in line with the target, and this, too, at a

distance of one mile. In this instance, had the target been a man-of-war three or four hundred feet long, instead of a twenty-eight-foot whale-boat, the shot would have done its deadly work.

The trouble in the experiments was with the range. At one mile the precision was admirable, because with a pressure of fifty atmospheres and a three-hundred-pound projectile, the guns are set at such an angle as to drop the projectile into the water at that distance; but the attempts at three-quarters of a mile and at the half were all failures, from the standpoint of the navy critics, as the dummies either fell short or went too far in every instance. The errors in range were estimated at from 450 yards beyond to 300 yards short. These defects were developed most strikingly in the work of the second day. Of the six shots made, four were over-shots, of which one, being but twenty yards beyond, would have been certain to be effective; and of the other three, two, in which the over-reach was respectively 200 and 250 yards, would have stood a chance of being effective by contact with some part of a man-of-war's top hamper, as both were flying low when the position of the target was passed. Should a projectile containing 200 or 300 pounds of nitro-gelatine explode in the tops, or even in the royals, of a vessel, the concussion would be certain to kill every living being on her decks, so that an over-reach shot might be the most effective and the most desirable that could be sent into an enemy, as it would destroy her crew without necessarily doing great injury to the ship. This, to be sure, is not a very humane suggestion, but war has not much room for humanity.

The range with these dynamite tubes is wholly regulated by the air-pressure let into the tube, and it might be that the errors in that respect were partly the result of a want of skill, such as can only be gained by experience on the part of the officers in charge of the tests.

The board has reported to the Navy Department in effect that the trial was not a success, and recommends that the guns be partly reconstructed to improve the air-valve arrangements, after which another trial is suggested. Should this recommendation be adopted by the department, probably ten months or a year will elapse before the decisive trial can be made. The *Vesuvius* has been ready about two years for the test which has recently taken place.

It is scarcely to be wondered at that navy men do not want to fight with dynamite, for it has made for itself a very bad reputation by its disposition to destroy things within reach when not properly treated; but the fact is that when kept at a comparatively low temperature—say from thirty to forty degrees above zero, Fahrenheit—it is less liable to explosion by concussion than ordinary powder. It is therefore simply a question of cold storage, with proper insulation on shipboard to make the projectiles as safe to handle as common great-gun ammunition, not to say safer. But the trouble is that only a few are ready to believe what science has demonstrated; and in addition to this, navy people are traditionally conservative with regard to anything new in their profession. It is likely, therefore, that the compulsion of some public emergency will be necessary to establish this new and terrible agent of destruction as an element in our naval service. Neither dynamite nor gelatine was used in the late experiments, as it was finally determined that dummies weighted with sand would answer all practical purposes.

IXION.



ON this wheel condemned to roll
 Through æons of the coming time,
 Through summer's heat and winter's rime,
 Undaunted still my deathless soul,

I linger, while the fateful sway
 Of Chronos sweeps its round of years,
 And ever marked by human tears
 Draws near th' inevitable day.

The day when Time shall cease to be,
 And time-born systems scarce shall seem
 The memory of a parted dream,
 And Space regain Eternity.

That day which brings to Cosmos rest,
 No change for me shall usher in.
 For ever doomed ! My daring sin
 Repented never. So 'tis best.

Though damned to never ending woe,
 Still yet I would not cease to be,
 Nor shun pain's dread Eternity,
 Nor let Nepenthe cheat my Foe.

Wreak on me Zeus thy vengeance dread,
 Almighty tyrant, thou'rt defied !
 Thy torments cannot match my pride—
 The pride of love unmeasuréd.

Stern Pride and Love together mixed,
 I know not which was born of which ;
 I only know that both enrich
 My soul unaltered, ever fixed.

My pride was such, no lower love
 Than Hers who reigns the Queen of all,
 Could ever hold my heart in thrall,
 Or my stern nature hope to move

That pride unshattered by my fall,
Forbidding still 'mid pains of Hell
My spirit at its fate to quail,
Sustains me here in scorn of all.

The love that brought me to this plight,
Still burns unquenched, intensified,
Though unreturned, although denied
To me the rapture of her sight.

Begetting pride that it should be
Fixed where no other dared to hope,
Return could fall within the scope
Of man's rash intrepidity.

O Hera! harken to the cry
Wrung from this heart no Hell can daunt,
In pity hark! Forbear to taunt
The love my courage placed so high.

O Hera, Hera! for thy sake,
Unending horrors are my lot,
They pass me by, I heed them not,
'Tis thou alone my soul can shake.

O Hera, Hera! loved and lost!
That agonizing thought, beside
All other sense of pain, has died
Within this bosom, tempest tossed.

Heap on me then thy tortures, Jove!
And my strong soul shall still sustain
The unequal fight, upborne by pain,
O Hera! of despairing Love.

J. SEERLAND.

ADVENTURES IN SEARCH OF A FUQUEER.



(Concluded from page 232.)

URING the time I had been at the Rajah's palace, I had been sumptuously entertained; there was not a want or wish that was not anticipated. My introduction to the Rajah was to take place at 8 o'clock P.M., so I prepared accordingly. The time at last came when I was ushered into his presence, and I found him to be about 60 years of age; a pleasant Bengalee gentleman. The room was brilliantly lighted up, the Rajah was sitting in a kind of recess on cushions, and before him was a thin, fine, lace screen. Up he got and shook hands with me, desired me to be seated, and then began our chit-chat. He complimented me on the very rapid manner I had obtained the whereabouts of his brother, and my success in inducing him to accompany him, and thanked me frequently for conveying him in safety to his home: time passed pleasantly, the Rajah's manners were very affable and pleasant. He took up a *sitar* (native guitar), and gently running his fingers across the strings, played a pretty native air; several airs followed, some of which I recognised; it was evident that the Rajah was a good musician. He asked me to sing him an English song, which I did, and which pleased him; then I hummed other airs, which he speedily caught up and played. Cooling drinks and sweets were brought in, soon after which the interview broke up. On saying good-night, he asked me to call again the following day at 12 o'clock, and he would shew me his armoury and battery of sporting guns. I accepted his invitation. I believe I mentioned that I was living in a splendid double-poled tent, which had been pitched for me, and was sumptuously furnished with Calcutta-made furniture: on a sideboard stood every wine that was made and sold, and servants by dozens were ready to attend me,—verily I lived in clover. The next morning early I rose and went out on a splendidly caparisoned elephant, had a look about the place; can't say much about the architectural beauty of the city; the Rajah's palace was the only fine building in the place. About 8 A.M., two of the Rajah's sons came to visit me, found them intelligent, could read and write English, having been educated in Calcutta. They invited me, after visiting their father, to come and fish with them at one of their favorite tanks. After breakfast, which was a sumptuous one, I went up at 12 o'clock to the Rajah's palace, found him in the same place; he appeared at this interview to be a good deal marked with the small-pox. After a little chit-chat, on we went to the armoury, full of nice guns, fowling-pieces, swords, &c., &c., at last we came to a large glass case, in which stood a row of single-barrell smooth-

bores, long, thin barrells, but *all* with the name Joseph Manton on the barrels in gold letters—genuine “Joe” Manton’s and no mistake—all flint guns. He seemed very proud of this battery, and said he had killed many a tiger and leopard with them, that they were very true guns. In a sporting line, I considered them very curious, and quite out of date for the age, so far as sporting was concerned; but they were genuine “Joe’s” and no mistake. I gave him many hints as to how much I should like to possess one of his valuable trophies, but the old fellow would not part with even one of them. After about an hour’s interview, he asked me to call again in the evening and have some more music and singing. I agreed. Returned to camp, and at about 2 o’clock the two sons called to take me out fishing, supplied me with rods, &c., soon reached the tank which I found was very strictly preserved, no one being permitted to throw a line into it, save the Royal family. We took our seats under a fine, shady Banian tree, and began to fish. I soon hooked a large fish, which proved on being killed, to be a 10 lb *Rohao*. I caught a second and a third; the Rajah’s sons also succeeded in catching several fish, all *Rohaos*—they were in fine condition, as we found the following morning at the breakfast table. I thanked the boys for affording me such fine sport. After dinner that evening, a servant of the Fuqueer waited upon me with a present of sweets from his wife, and a request from him that I would call next day and see him and his wife and daughter. I said I would. At about 8 P.M. I strolled again over to the Rajah’s, found him sitting surrounded with *guitars*, and half a dozen good-looking *nautch* women in attendance. The concert was opened by the Rajah’s guitar-playing, which was attentively listened to and highly applauded; then followed dancing and singing by the women in the usual native style; this lasted until about midnight. When the party broke up the Rajah wished me a cordial good-night.

Early next morning I was informed an elephant was in waiting, on which was the Fuqueer, and that he had called to give me an airing. I jumped up and dressed, and speedily joined him; found to my surprise that he had changed his garb, cut his dishevelled and tangled locks, shaved his beard, &c., and really looked quite a different being. He could speak English very fluently, and considering the wandering life he had lived in the jungles, was very well informed about things in general. After a very pleasant stroll all about, he brought me back to camp, and asked me to come at 12 o’clock to his own side of the palace, and that he would introduce me to his wife and daughter; this was a very unusual thing to do, to introduce a European to his wife and child. After breakfast I got ready, and over I went; found the Fuqueer ready to receive me. After a little preliminary chit-chat, he took me to his private apartments, and after sitting a few minutes brought in his wife and daughter; the former was not an elderly lady, say about 30, well dressed and covered with jewels; then came the daughter, a nice, comely girl, apparently about 16, very fair and decidedly pretty; she was married, but had no children. The ladies said little, the Fuqueer chatted away pleasantly, and said the ladies were very grateful to me for having brought him back to them.

HILLS NORTH OF DEYRAH.

(The End.)

WANTED, A HOUSEMAID.

(BY "RILDA.")



"WISH I knew if Carrie really loves me, or not," sighed Charley Grey, as he flung down the paper he had been making a pretence of reading, with disgust.

"Poor old boy!" said his sister, Mina, pityingly, as she put down her book and looked at him sitting on the opposite side of the fireplace, "it certainly is very tiresome! Suppose we go over the facts of the case again together; tell them to me as though I were a stranger, who knew nothing about the matter; perhaps I shall catch a glimpse of light somewhere.

"Well, you see, its like this," commenced Charley: "When we were living in Gravesend, I always used to see a good deal of the Carsons, and was rather attentive to Carrie, as she was, and is, I dare say, a deuced pretty girl; well, just before we left for India, Mrs. Carson gave me some pretty broad hints to the effect that Carrie was rather 'gone' on me; of course I could take no notice of them then, for I was not in a position to marry; but seeing how constantly the family wrote to me when in India, I sent home to Carrie when I had got a good increase of pay, and asked her to marry me. To my surprise her answer was 'no!' She said she did not wish to tie me down with a wife at the beginning of my career: why did she refuse? Had she ceased to care for me? or was it only as she said, that she did not wish to be a drag upon me? or was I not rich enough to suit her? This last thought deters me from asking her again to marry me, for if she were to accept me this time, I should always feel as though she had only taken me for the sake of the very handsome legacy aunt Lawrence has left me."

"Why not ask her again, without mentioning to her your sudden accession to wealth?"

"Oh! no, that would not do, for when she heard of it, I should stand revealed as that pitiful cad—a man who is afraid of being married for his money."

"Yes, I see what you mean; I do wish that there was some way of helping you. Is that the *Gravesend and Waterford Reporter*? indicating the paper lying upon the floor.

"Yes," answered Charley, handing it to her; for a wonder they have so soon got hold of our change of address at the *Reporter* Office, for from India to London is a considerable change."

"Yes; I don't know what we should have done without this dear, old paper while we were in India, it kept us *au fait* with the Grave-

send news," and Mina forthwith buried herself in the 'local column'; whilst Charley pondered again upon his difficult love affair. From his gloomy meditations he was soon aroused by an exclamation from Mina, and looking at her he saw that she was brimming over with excitement.

"What is agitating you, Mina?" he asked curiously.

"Oh! Charley," she cried, "I do believe that there is a beautiful chance of helping you! Listen!" and she read as follows from the paper in her hand: "Wanted, immediately, a housemaid; age between 18 and 25; cook and page kept. Apply personally on Monday, from 10 to 5, to Mrs. Carson, Old Waver Road. There! is not that glorious?" she ended triumphantly; but Charley, naturally, did not perceive the gloriousness contained in an advertisement for a housemaid, nor yet how it could benefit him, so answered rather crossly: "You are silly, Mina, what is the good of that advertisement to me? I can't apply to the Carsons for the situation!"

"No, but *I* can!" announced Mina.

Her brother was quite as much startled by this original idea as she had intended him to be. "*You* go as a housemaid, Mina; what an extraordinary plan! and how would you purpose to aid me, even if you were so successful as to obtain the situation, which is *most* unlikely?"

"Attend, and I will tell you. If I were established in the Carsons' house *incognito*, I should soon be able to ingratiate myself into Carrie's favour, by offering to do little services for her, such as brushing her hair at nights, &c.; ten-to-one she would before long allude to you, if she loves you; perhaps she would even distinctly tell me that she does; the battle in that case would be won, and I could write to you to come and occupy the fallen citadel. With regard to my chances of getting the place, I am very sanguine: you note that they say 'wanted immediately,' so if I were to apply first, I bet you anything they would immediately engage me. Oh! It would be the rarest fun!" and she danced round the room with glee; her brother promptly proceeded to throw cold water upon the scheme.

"Don't excite yourself, Mina; mother will never give you the chance of enjoying that fun; she will certainly not approve of your lowering yourself to take a menial's place; but even if she did, do you not think the Carsons would recognise you immediately, and then the game would be up? No, Mina, it is a mad idea, worthy of your flighty little brain, and it won't fizz!"

"Oh! but Charley, it *must* fizz!" cried Mina bringing her dance to an end. "It would be so nice, dear, I am getting *so* tired of these dull, stupid old apartments, and would dearly like such an exciting change from them. As to their recognising me that's impossible; remember what a hideous little thing I was when I went to India, and see how I have changed!"—with a conscious smile that proclaimed her knowledge of her own loveliness—"Oh! dear, old boy! I do long to have some acting again. Please do not throw cold water upon my brilliant idea, and do, there's a duck, persuade mamma that it is in every way feasible!" and she threw her arms round her brother's neck, and looked pleadingly at him out of her lovely grey eyes. Even though he was only a brother, Charley could not resist their witchery, so kissing his sister, he said indulgently: "There! there! you are a foolish little thing! But I suppose I

must give you your way in this, as in everything else ; you would charm the heart out of a stone with those eyes of yours, I verily believe. But mind ! I don't approve of this quixotic idea of yours, and do not believe it will succeed. I am sure you have not taken into consideration the hard work you will have to do ; think of your beautiful white hands growing red !"

"Oh ! yes, I have thought of the work, and as to the hands, I can wear gloves and use Beltham's glycerine and cucumber ; but here comes mamma, let us lay seige to her ! Mother," said Mina, caressingly, "you *are* such a darling !"

"Yes, my dear child, of course I am !" laughed the handsome lady who had entered and taken a seat by the fire, "I ought to know it by this time, seeing how often you and Charley are telling me I am one ! But what is it you want to coax out of me this time ?" smiling fondly at her spoilt darling.

"Oh ! Duckie, I have such a brilliant idea !"

"Another brilliant idea ! Bless the girl, she is always having them ! what is it to be this time, a journey to the North Pole, or a voyage over the world in Verne's clipper of the clouds ?"

"Nothing half so romantic, mother, I only want to be a housemaid."

Mrs. Grey was as much horror-struck by this announcement as if her daughter had expressed a desire to commit murder. "Mina, what are you saying ? The brilliancy of this new idea of yours quite dazzles me !"

"Don't be sarcastic, mother, there's a pet ! I really and truly mean it."

"And pray, may I inquire what advantage you expect to derive from being a housemaid ?"

"I look for no advantage to *myself*, but I trust it would be of use to Charley."

Mrs. Grey looked at her son as though to ask if Mina had suddenly gone mad, and then she said with mild irony, "Do you intend to send all your little savings to Charley so as to keep the wolf from his door ?"

"No, darling, I will tell you my plan," which she forthwith proceeded to do, laying a particular stress upon the fact of the happiness that would be Charley's if he found that Carrie honestly loved him, but all her eloquence failed to convince her mother.

"Even to benefit Charley I cannot consent to your lowering yourself so, so say nothing more about it," she said decisively.

Mina looked to her brother to back her up.

"Yes, Mina, mother is right, it would not do : you are a dear girl to think of my happiness, but I dare say I will get over my trouble in time," he said, concluding with a long-drawn sigh that although put on, deceived his mother and touched her heart.

"And suppose I were to give my consent to this wild plan, how do you think you could do a housemaid's work, Mina ?" she asked, "and how would you manage if Mrs. Carson asked you for references ?"

"Oh ! I am sure I should make a most artistic housemaid ; as for the references I should say that I had only been in service once before, to a Mrs. Weston, and give this address ; you would have to answer her, if she wrote, in a feigned handwriting, and say that I had been a paragon housemaid."

"Too much deception to be right!" said Mrs. Grey, with disapproval, "and what would you wear? A housemaid could not appear in a thing like that!" indicating the lovely white Cashmere and fur-trimmed tea-gown the girl was wearing.

"Oh! there would be no difficulty about *that*, dear, for you know those two new dresses that have just come home are severe in their simplicity and neutral tints; as for ordinary morning wear, any of my Indian prints would do, they are very plain, and I can soon make some caps and aprons. Do let me try, sweet mother, for there is nothing to fear. Of course, you know all about the Carsons, and may be sure I shall be quite safe with them."

"Well, you can go," said Mrs. Grey reluctantly, but "don't blame me if you do not find it as pleasant as you apparently anticipate it will be."

"Oh! you dear darling! thank you so much!" and vehemently kissing her mother, Mina started off on a wild dance round the room, making the whole of the rickety-built English house shake with her energy, whilst the mother and brother looked on and smiled indulgently at that wild little sunbeam of theirs. The dance was not of long duration, for a sudden idea striking her, Mina stopped short with a puzzled look upon her face. "What is it now, Mad-cap?" asked her brother.

"I am only wondering," she said thoughtfully, "what style of language I shall adopt; shall I be Irish, Scotch, or Cockney? Listen to the different varieties—"

'Sure, sore, and its myself that's after telling yer the tay is ready?'

'Aweel, mistress, and dinna ye fash yoursel', I'll gae to the town mysel' and bring the gowd!'

'Please, mum, the cat 'ave heaten hall the *Hirish* stew.' There, which will be best do you think?"

"The Cockney, I fancy!" answered her brother, laughing at the quaint fashion with which she had given each sentence.

"Then Cockney it shall be!" cried Mina, skipping out of the room to attend to her packing and aprons.

"A wild little woman she is!" said Mrs. Grey, "I hardly like this business, but still she seemed to have so set her heart upon it, that I had not the strength of mind to refuse her; besides she may really be of use to you."

The next day, Sunday, Mina, with an April face of tears and smiles, the tears for the parting from her people, and the smiles for the merry freak she was embarking on, left for Gravesend by the 1-10 P.M. train from Charing Cross. Arriving at her destination by 2-33, she drove with her luggage immediately to Windmill Street, the main street of the town, and without much trouble secured suitable apartments in which she took up her abode till the next day, when she hoped to exchange them for a housemaid's attic at the Carsons'.

(To be continued.)

UNDER THE LINDENS

(*A Midnight Story; in two parts.*)

(By "GRETCHEN.")

There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy

SHAKESPEARE.

PART II.



HERE were gay doings at the Towers that night in honour of Joan, the beauty of the Downs, as she was called, and as many a woman of her family had been called before her. All the country-people were there, and many others besides. The house was brilliantly lit up, and was sweet and gay with its wealth of flowers from garden and conservatory. The Portrait Gallery, looking just the same as it did every day, except that it was more brilliantly lit up than usual, with its length of polished floor, its oak panelling, and its beautiful paintings, made a noble ball-room, and the dancers in their various and handsome fancy costumes put the finishing touches to a very picturesque scene. But one and all were unanimous in declaring that Joan Effingham in her old-world white satin gown, with the creamy, matchless Effingham pearls clinging round her warm, white throat,—Joan, looking as her ancestress in the gilt frame looked, only with a younger, happier air about her,—was the belle of the evening. But before the guests had been there an hour, Joan bore a still greater resemblance to her dead and gone relative. So much can happen in an hour, and there was a little look of defiance in the girl's dark eyes, and a scornful curve about her ripe, red young lips, which had not been there at the very beginning of the evening. Dick Hamilton, with the folly of youth, had poured out his heart to the father, at what he thought was a favourable moment, but at a time which was most unfavourable to his cause. While the dancing was going on and Joan was being monopolised by the important eldest sons of different houses, he had taken old James Effingham aside and asked him for his daughter. He, a mere nobody, who did not even know who or what his great-grandfather had been, he a briefless young barrister, with nothing but his good looks, and clever head and warm heart to recommend him, asked for Joan, the most beautiful and the most wealthy young woman, perhaps, to be found in the south of England,—a woman who had only to hold out her hand to have the best blood in England at her feet—perhaps it was not to be wondered at that James Effingham was more emphatic than polite, for the family temper had been,

aroused; and perhaps it was only natural that, in the pauses of a valse, while the music half sad, half gay, throbbed through the rooms above, Dick, in a little alcove half way up the great oak-staircase, in the dim soft light of a rose-shaded lamp, with Joan before him looking her loveliest, leaning against an armour-clad figure, should tell her everything, spoiling her evening for her.

"Dick, I will be true to you," she said, putting both white arms, round the man's neck.

"So said the other Joan, no doubt," murmured the young fellow, holding her close to him.

"But if I don't marry you, I shall marry no one" she replied, drawing herself out of his arms as she heard a footstep.

A partner had come in search of her, and she went away upstairs, while Dick sauntered moodily down, having made up his mind not to dance any more. To his surprise he, a few moments afterwards, saw old Mr. Effingham come up to him, looking a little more amiable than usual, though there was a worried, anxious air about him.

"Look here Hamilton, come outside" he said, "and let us talk it over in a friendly way. It is hot in here," and he took the young fellow by the arm and led him out of the house, across the drawbridge over the moat, in which the water-lilies gleamed white in the moonlight, through the sweet-scented, old-fashioned garden, and out into the park. They sauntered along, the older man talking the whole time.

"You must see for yourself, my dear fellow, that Joan must make a good match; look at her wealth and position. You think you are madly in love with her and she with you. You may be, but you will get over it; but believe me, Hamilton, when I tell you I know my child, and that she is an Effingham. Sorry as I am to have to say it, I must tell you that the Effingham women have always been false, more or less so, fair and false—fair and false nearly always. Leave my girl alone, it will be best for you in every way, certainly best for your happiness. There is a very old couplet in our family which originated many hundreds of years ago, which runs thus—

If you wed the heiress of the Towers,
You will suffer many weary hours.

And strange to say the last time a woman was heiress to the old place, that was the Joan Effingham whose portrait hangs in the gallery, and to whom my daughter bears such a remarkable resemblance. She did cost the man she wed many bitter hours. She was always thinking of her old lover, was unloving to husband and child, and you have no doubt heard of her fate."

All this time Dick Hamilton's temper had been at a white heat, but for Joan's sake he had held his tongue. "They had been walking till they reached the magnificent avenue of Lime-trees, into which they turned, when suddenly the clock in the Eastern Tower began to strike the hour of midnight, and the moon, over which a cloud had passed, shone out more brightly than ever; and there, in the bright light which fell in great white slabs between the trees into the silent avenue, both men saw something which made them stand still, and brought a look of triumph into James Effingham's eyes, while it made Dick Hamilton's heart beat faster from a sense of bewilderment.

"Look! did I not tell you so?" whispered the elder man, grasping his companion by the arm.

Dick Hamilton did look, and what he saw was Joan Effingham, whom he thought he had left in the ballroom,—Joan without any wrap or covering, her beautiful arms and head bare, with the pearls gleaming at her throat and the moonlight shimmering on her satin gown, Joan, the girl he loved and trusted, in the arms of a man in a heavy cloak and slouched hat; a dozen yards away from where they were standing, in one bright streak of moonlight which lay across the path, stood these two. Only for a moment did Dick see them, then he started forward with a little moan of pain; but once more a cloud passed over the face of the moon, and when it shone out brightly again, there was nothing to be seen.

"My poor fellow," said Effingham pityingly, "I am sorry for you, but I told you so."

"Who was he?" Dick asked in a dazed way; he was more hurt than he liked to confess.

"Doubtless some lover, I know nothing about my dear boy; girls must have their little fancies I suppose, I don't interfere with Joan; I dare say she will settle down when she is married."

The two walked back to the house; Dick went up to his room and began to pack; a telegram was to call him away the first thing in the morning; James Effingham went to his study muttering "The family ghosts were favourable to me to-night. Strange I should have seen them for the first time, since the night before I was married. It was a happy thought of Joan's to dress herself like the White Lady, and it might have been the child herself out there to-night. Ah! yes it is true that 'There are more things in heaven and earth than are dreamt of in our philosophy.' The White Lady has done me a good turn this time."

But Joan was wrath the next morning, and for the first time in their lives, father and daughter quarrelled, while Dick was being carried away in an express train to London and his dreary chambers.

In those same rooms one day, a year afterwards, Dick Hamilton sat with a tiny note in his hand, and an amused smile on his lips. He had long before written a passionate letter full of love and blame to Joan, and she in return had reproached him for not trusting her. Since then she had written often, and now, in this dainty coloured and scented little letter, she had asked him a rather extraordinary request. 'One of Joan's freaks! what a child she still is, in spite of her twenty-two years, he thought; but he meant to obey her implicitly nevertheless. It was growing warm and close in London but the roses were out once more at the Towers, and Joan's birthday was coming round again. There was to be another fancy-dress ball that night, for Joan particularly wished it, and every one was glad to accept the invitations sent out, for nearly all had pleasant reminiscences of the last one. When the evening came at last, every one said it was not to be wondered at that the young hostess had chosen the same dress as before, for it was so very becoming. Joan was at her brightest and best that night, and old James Effingham felt unusually proud of his daughter, and much relieved when he thought that she had got over her fancy for that "pauper" as he called Dick Hamilton. "She is a good girl," he said to himself

with a little pang of regret when he remembered the falsehoods he had told the young man. But he quieted his conscience, as many have done before and since, with the old adage "All is fair in love and war."

About half past eleven, when people were dancing away with all the energy they could summon up, and the music was ringing madly through the house, while servants went to and fro busily laden with tea and coffee and ices, the master of the house stole quietly out of a back-door and went away across the park. Few, besides his daughter, knew how thoroughly old James Effingham believed in everything supernatural; as long as he had lived at the Towers, he had been down on the 21st June by midnight, under the Lindens to see if there would come any visitor from another world; twice had he seen the family ghosts, and this time it was with a keener sense of pleasure that he went, for Joan had many noble suitors, and it was time she was married and gave the Towers an heir.

The night was so still away from the house, and almost as bright as day with the moonlight which flooded everything. James Effingham waited anxiously under the shadow of the trees, till the Tower clock began to strike. Each stroke fell clear and sharp on the still night air, then a slight wind began to stir among the trees, a bat whizzed by now and then, and an owl commenced to hoot; was it the wind, or the cry of a bird? Certainly something had made a sound, and the listener's blood seemed to grow cold, as he heard breathed in the air, the name "Joan," more in a sigh than a word. In the dusky moonlight, there under the Lindens, he almost felt rather than saw a movement, and then two figures glided in, one from each side, and met in a little patch of half-shadow, half-moonshine; they glided into each other's arms, the figures, just as he had seen them a year before, just as he had seen them more than three and twenty years ago. Joan, the White Lady, in all her beauty, her "gloss of satin, and glimmer of pearls", and the dark, cloaked man. They closed and clasped, and seemed to kiss, then parted, the ghost of the man disappeared, but to old James Effingham's horror, the White Lady stood still in that dim moonlight, and with one hand pointed at him. "Effingham" it said, the word was whispered, scarcely spoken, "if the mistress of the Towers wed not with the man she loves, there will be no Effinghams left to tell the tale." For it was an understood thing that the man who married Joan, should take her name. When an hour afterwards the host was missing, search was made for him in the Lime-tree avenue, where he was found lying insensible.

Every one was shocked when Joan, the heiress and the beauty, stooped to marry the man she loved; and when they stood together, a year afterwards, on a certain June night in the Lover's Walk, they turned and kissed, and laughed gaily at some little joke of their own. "But the time I saw you Joan with my own eyes," remarked Dick. "Oh! yes, I do not understand it," answered the young, newly-made wife. "There must be things in life, little links binding us to some other world, about which we shall never know anything here; but you believe me, do you not Dick, though at first you thought you saw me?"

"Believe you, yes," he replied, "though it was hard to disbelieve my own eyes, and I had never seen a ghost in my life before."

A nightingale burst into a little trill of melody, in the middle of which it broke down, something had stopped the bird's song, it was the striking of the old clock in the turret. Joan suddenly caught hold of her husband, and Dick, as suddenly put his arms round the girl, for she was frightened, and he himself felt a sense of wonder and awe. In a wide space of moonlight, for the night was cloudless, stood two figures, the woman in her white gown, the man in his dark cloak ; with bare white arms round the man's neck, the woman held his head close to her breast ; the man's darkly clothed arms were round the woman's slender ghostly figure, and the ghost of the Effingham pearls stood out distinctly on the woman's fair neck ; there was something terribly pathetic in the attitude of both figures, and then—they suddenly vanished.

"The whole thing is true after all," said Dick, pinching Joan, to show if she were real flesh and blood.

"Yes, I never should have thought it possible," sighed Joan in wonder. "But you must believe me now, Dick," she added, nestling closer to him, as they hurried out of the dusky avenue into the moonlit park, for she had received a fright.

"I always did believe you," indignantly replied Dick, like a man forgetting that at first he had condemned her unheard.

"Ah ! well I owe a debt of gratitude to my poor ancestress, the White Lady, she has done us two good turns, though at first she did us a bad one."

"But we paid her out by making use of her" laughed Dick, much amused at the remembrance of something. Joan, however, was very grave for the next few days. The strange and pathetic sight she had witnessed, was one she never forgot, but that was the last time the White Lady and her lover were ever seen under the Lindens at midnight.

EDITOR'S EASY CHAIR.



THE HERO OF "UNCLE TOM'S CABIN."

NO book of modern times has enjoyed a wider popularity, or more largely affected the moral and political thought of the world, than "Uncle Tom's Cabin." And no character in that book awakened profounder interest than its hero, George Harris, the handsome, stalwart and intelligent young mulatto, the down-trodden victim of the slavery system in the South, who subsequently escaped to Canada. This character finds a prototype in Lewis Clarke, who personally provided Mrs. Stowe with most of the sensational and dramatic data for her story. A few details of the history of this man will not prove uninteresting:—Clarke, who enjoys this unique distinction with proud complacency, was born in Madison county, Ky., in 1815, his mother being a slave, the property of Samuel Campbell, a very wealthy man. After many vicissitudes and blood-curdling experiences—subsequently detailed for the edification of Mrs. Stowe—George, or, more correctly, Lewis, was put up at auction at sixteen years of age, like any other goods and chattels, at Stanford Court House, Ky., and knocked down to the highest bidder—a gentleman from Garrard.

Here, according to the man's account, history repeated itself, and continuous persecution on the part of his master, who would fain have kept him in ignorance and dire subjection, fired the lusty, quick-witted youth with the purpose of effecting his escape and winning his way to Canada, the bondsman's Mecca. Here the cases of the story's hero, George Harris, and Lewis Clarke are parallel. Personally, too, there was no dissimilarity between the real and the fictitious character. Mrs. Stowe drew her picture accurately from life. The description that the story gives of George Harris was an exact description of Lewis Clarke at the time that Mrs. Stowe knew him. "Six feet in height, a very light mulatto, brown, curly hair, is very intelligent, speaks handsomely, can read and write."

Both were accomplished and adepts at the spinning-wheel. After an effectual escape and several years of slow progress northward, during which time he was favorably received in Ohio and other States, he finally found his way to Cambridgeport, Mass., where he was kindly received by Dr. Lyman Beecher, who felt a keen interest in his career, and gave him pleasant employment at his own home.

Lewis Clarke, now an old man, delights in relating incidents in the home life of the Beecher family, with which he was closely identified for six years, and among whom he was treated with the utmost kindness. Mrs. Harriet Beecher Stowe, whose husband at that time was a professor at Lane Seminary, an Ohio institution of which

her father, Lyman Beecher, was president, made it a custom to spend her summers at Cambridgeport, her girlhood's home. It was during these visits that her sympathies became aroused in the young mulatto under her father's roof, who had endured so much, and who became to her a type of his kind, and a just exponent of the barbarities of the Southern slave-holding system. Mrs. Stowe turned an attentive ear to every reminiscence with which young Clarke was quite willing to regale her, being especially alert at any incident or detail that she fancied she might render available. Frequently she would follow the young man about his work and ply him with deft questions, he unsuspecting of ulterior motive on her part. Then suddenly she would say with apparent indifference: "Wait here, George, until I come back," and hasten to her room to make a stealthy memorandum, returning soon to continue her "drawing-out" of the young negro and collect further material. When Mrs. Stowe saw Clarke after the publication of the book she admitted that she obtained her information from him with no definite purpose in view, but only under an impulse that urged her to acquire all the facts and coloring possible bearing upon the slave system. "Uncle Tom's Cabin" seemed to evolve itself from the storehouse of her mind. Clarke subsequently said to her, in mild rebuke: "Lor'! Mis' Stowe, whyn't you lemme know I was talkin' for a book? I could a-told you things wuth readin' about, sure 'nough, then."

The "Aunt Chloe" of the book had for her original old "Aunt Annie," who belonged to Clarke's Kentucky master. "Emeline" was his sister, Delia Clarke. Other characters were specific subjects from real life idealized. "Uncle Tom" was a sort of composite photograph, compiled from various sources, and artistically retouched.

Lewis Clarke, *alias* George Harris, is now a striking, picturesque-looking man of seventy-six, with a refined face, silken snow-white locks that curl about his head, and a skin of Caucasian fairness. He has devoted considerable time, both in Canada and New England, in the lecture-field, his theme in former days being "The Exposure of Slavery." Even now he has a taste for public life.

With strange inconsistency he has turned to Kentucky, the scene of the bitterest and most galling associations of his life, as he alleges, as to a peaceful haven in his declining years, and is living in contentment with his children there. Nature has justified herself.

ALEXANDER SELKIRK:

OTHERWISE KNOWN AS "ROBINSON CRUSOE."



F all the thousands of boys who have read the enchanting pages of "Robinson Crusoe," there is probably not one who has not asked, Is it true? And it is also probable that not one out of ten thousand who asked that question received an approximately intelligent answer. Considerable research has been made among records which relate to Alexander Selkirk, whose solitary sojourn upon the island of Juan Fernandez furnished the nucleus for the most famous tale of adventure which the world has ever read, and we can but

think that many who have asked themselves the question, how much of Robinson Crusoe is true? will find interest and pleasure in a brief statement of the facts of the strange career of the Scottish sailor who served as Daniel Defoe's "original" Robinson Crusoe.

Selkirk's birth-place was in the little seaport town, Largo, county of Fife, Scotland, and the year of his birth 1676, and here he spent the first thirteen years of his life. According to an ancient Scottish superstition, a seventh son, born without an intervening daughter, was bound to be a favorite of fate, and would become a great man. As the circumstances of Alexander's birth met all the requirements of the tradition, it is not strange that Mrs. Selkirk secretly nursed large hopes for her seventh lad, notwithstanding the fact that her husband John, a hard, practical, and high-tempered old shoemaker, held such dreams to be nonsense, and determined that Alexander should settle down to the shoemaker's bench, and learn a quiet, honest trade. Thus Alexander and his future became a bone of contention between the hard, unloving, and sometimes cruel, old Scotchman and his gentle, shrinking wife, whose heart was full of dreams for her pet son.

This unfortunate state of family feeling could have but one result: it made Alexander disobedient, headstrong, and discontented with life and all its wholesome restraints and occupations, and made him determined to break away and enter upon the great career before him. By the time Alexander reached the age of nineteen, he had acquired a fair knowledge of reading, writing, arithmetic, and considerable information concerning navigation, together with a well-merited reputation for being a wild boy. In England and Scotland the records of the churches were carefully kept and preserved, and in the Presbyterian Church, in which John Selkirk was an "elder," is the following entry: "August 25, 1695. Alexander Selcraig, son of John Selcraig, Elder, cited to appear before the session for indecent conduct in church." This "indecent conduct" seems to have been laughing aloud. Two days later another entry was made: "August 27th. Alexander Selcraig called out: did not appear, having gone to sea. Continued until his return." The citation appears to have been thoroughly outlawed, for, according to an old Scottish narrative, Alexander spent the next six years scouring the southern seas with buccaneers, who were a sort of semi-legalized pirates. But when he did return, Alexander made up in misconduct for all time lost during his absence. He quarrelled with a half-witted brother and pounded him with a stick. For this he was sentenced by the sessions of the church to stand up and face the whole Sabbath congregation of the church—as humiliating a punishment as the church dignitaries knew how to inflict upon a young man of spirit.

But young Selkirk took this bitter medicine with brazen stoicism. This was in November, 1701; and the next year found him in England, booked for sea under the standard of Dampier, one of the most celebrated characters in all the annals of buccancering. France and Spain were then at war with England and other northern countries, and Dampier secured permission from the Crown to prey upon French and Spanish merchantmen and colonies. Wealthy London gentlemen furnished him with two twenty-six gun vessels, *Pamé* and *St. George*. Dampier had associated with him a man

named Pulling, who was to command the former vessel. Just as they were ready to set out upon their plundering expedition, Pulling and Dampier quarrelled, and the former sailed away, to unknown shores, with the *Fame*, and left Dampier to secure another vessel. This he did. She was called the *Cinque Ports*, and was officered as follows: "Charles Pickering, Captain; Thomas Stradling, Lieutenant; Alexander Selkirk, Sailing Master."

The treachery of Pulling, and the delay which resulted, caused Dampier to miss the capture of certain Spanish galleons, with their millions of treasures, which he had planned to take at Buenos Ayres. As all concerned in the expedition were to share in the spoils, in accordance with their station, this result of Dampier's quarrel made the crew dissatisfied with his management of the expedition, and at the island of Le Grand, where the vessels put in for repairs and supplies, nine of the men deserted. But this was not the worst misfortune. Pickering, commander of the *Cinque Ports*, died here, and was succeeded by Lieutenant Stradling, who was cordially hated by the entire crew. To add to the general discontent, Selkirk dreamed that the voyage was to be ill-fated, and in those days dreams counted for much more than they do now.

After some three months of bootless and storm-tossed sailing, the *Cinque Ports* put into a bay of the island of Juan Fernandez to wood and repair. The discontent among the crews ran high, and would probably have resulted in outright mutiny while on the island, had not a French vessel hove in sight. In the haste and confusion of giving her chase, five or six of the sailors who had strayed into the interior of the island were left behind, but Selkirk was not one of them.

After a severe engagement, the French merchantman managed to escape. They turned about and were going to put into the bay at Juan Fernandez again, when they discovered two immense French vessels, heavily gunned, at anchor there. The pirate crafts lost no time in putting leagues between them and the French vessels and the six of their own men whom they had left behind.

After this the *Cinque Ports* had varying fortunes, until she again dropped anchor at Juan Fernandez, September, 1704, to find that four of the men whom they had left behind six months before had been captured by the French, and the other two had spent six months in the wild pleasures of seal and goat hunting, fishing and indolence, living on the abundant fruits of the island. While these men had been enjoying innocent ease and a life devoid of care, as their account of their sojourn pictured, Selkirk had been beset by wars "without and within," and when not in the midst of scenes of bloodshed, he had been engaged in a bitter feud with his brutal commander, and surrounded by the strifes and dissensions of the crew.

In a moment of blind and desperate longing to escape from all this strife, Selkirk asked to be left behind, with his scanty effects, upon the island. But no sooner had his request been granted, and the ship about to hoist anchor, than a full sense of his folly, and the maddening realization of his desolation and peril came over him, and he cried and entreated with outstretched hands, to be taken aboard. One narrative says that he even rushed into the sea as far as she could go, and stood gazing out after the retreating ship until .

the darkness began to settle down about him ; and that as the vessel set sail, the revengeful Stradling stood on deck and laughed at poor Selkirk's calamity. For many days the half-crazed man stayed by his sea-chest and bundles on the beach, hoping against hope that the vessel might return, tormented by all the superstitions concerning spirits and spectres, with which the sailors are familiar. Not until his forces were well nigh exhausted would he quit the beach and take food other than sea-lion flesh and clams, which he could get on the shore. The exhaustion which followed this fearful strain seemed to tame and quiet his wild spirit and bring into his whole after-life a gentleness which had been entirely wanting before. An invoice of his possessions shows him to have taken from the ship "bedding, clothing, a firelock, a pound of gunpowder, bullets, flint and steel, several pounds of tobacco, a hatchet, a knife, a kettle, a flip can, a Bible, some books on devotion and one or two books on navigation, and some mathematical instruments." He built himself two huts of pimento wood, and one narrative, not authentic, however, gives a description of his cave, which is not mentioned in the most trustworthy account.

Selkirk found an abundance of tropical fruits on his island, and also numerous rats, cats, and goats—but no savages. For nearly two years Selkirk kept quite closely to the beach and watched for a friendly sail ; but gradually he became more and more content with his solitary lot, and found a joy in the quiet round of the days, which he spent in chasing the wild goats and domesticating them, taming cats, adding to his comforts, reading his Bible, and praying aloud. Although he several times caught sight of a sail upon the distant horizon, only two ships ever dropped anchor in his harbour previous to his deliverance, which occurred at 2 o'clock on the afternoon of January 31st, 1709. These ships were both Spanish vessels, and would have carried him into a fearful slavery had he been indiscreet enough to have made known his presence before satisfying himself of their nationality. But despite his caution, he was, on one of these occasions, discovered and chased, and would probably have been taken had it not been for his superior swiftness of foot.

On the 31st of January, 1709, after Selkirk had been on the island four years and about three months, he watched the ships, the *Duke* and the *Duchess*, ride into his little harbor and send boats ashore. He knew the men to be Englishmen, and hastened to welcome them. At first they were shocked by his strange appearance, but soon learned his story and took him aboard the *Duke*, on which Dampier, whose great expedition had turned out disastrously, was acting as pilot. On Dampier's recommendation Selkirk was appointed mate and gained a fortune from the Spanish vessels which they captured in the next four years.

In 1712 he returned secretly to Largo, and was sitting in the old church when discovered by his aged and devoted mother, whose affection was too strong to be suppressed, even in the gaze of the whole kirkful of neighbours. Here, in his native town, Selkirk lived for some three years, spending most of his time in solitary rambles about the wildest Scottish glens in his country, or in sailing alone along the rugged shore, shunning human society and sighing for the solitude of his peaceful isle. Not all of his rambles, however, were entirely solitary. He occasionally fell in with a lass who was

tending her mother's cow, and finally fell in love with her, and persuaded her to go with him, secretly, to London, where it is supposed they lived together until her death. In 1724 Frances Candis, a fashionable woman, came to Largo to prove her right to Selkirk's property, under a will, dated December 12, 1720. She also proved her marriage with Selkirk, and his death, in 1723, on board the *Weymouth*, of which he was Lieutenant. If any reader of this sketch should chance to be in Edinburgh, he may, by going to the "Museum of the Society of Antiquaries," see the chest which contained Alexander Selkirk's sole possessions when he was set on his island, and also the cocoanut shell which there served as his drinking cup. The island has since been peopled with Spanish colonists, devastated by an earthquake, used by Chilli as a convict colony, and is now deserted, but as beautiful as the most charming scenes described in the ideal "Robinson Crusoe."

Our lady correspondent, "RILDA," writes :—One hears of ladies going home from India to England, and amusing their friends by the want of taste, and the extraordinary fashions displayed in their attire, and I truly do not wonder at this amusement, when seeing the deplorable want of style in some ladies here. They have a supreme disregard for the congruous, and wear thick, white muslin dresses, made with severe plainness, and then put on airy bows of light-hued chiffon at the throat, and think that they are following the 'mode.' Had they not read that bows and ties of chiffon are excellent finishes to dresses! Yes, but these bows and fichus look well only with materials with which they accord—a nice silk dress, or a fine foulard is well completed by one of these dainty little arrangements of silk muslin, but *not* a thick muslin or print. Again, some women pay no heed to colours; they don blue skirts and some other hued jackets, and hats trimmed with scarlet ribbons—think of that, any one with an artistic eye! Why do not these misguided women observe the harmony in their well-dressed sister's attires, and try to follow in their footsteps? It is not necessary to have much money to dress with taste. When wearing a bright blue dress, do not have a black hat trimmed with red velvet ribbons, for black velvet would cost the same, and make the hat suitable for any gown. In having new dresses made, ladies should avoid Medici collars. They still are worn in England; but out here—except for evening wear—look decidedly common, as the style has been so tortured by the *durzees*. When the dress material is soft, a draped collar makes a pretty change from the usual straight neckband.

TOPICS OF THE MONTH.



ELDOM, IF EVER, HAS THE "SILLY SEASON" at home been enlivened by exciting incidents, to such an extent as that now drawing to its close. To take a few of the more important incidents, in order as they occurred, we have first the return to Dublin of Stephens, the notorious Fenian and the head and centre of the Fenian organization. In the present state of disorganization of Irish parties, it is not impossible that we may yet hear more of Stephens. Next come, in rapid succession, Germany's emphatic reply to Chinese "diplomacy"; the refusal of Germany to take part in the issue of the new Russian loan; the suicide of General Boulanger; the Russian threats to India, and the little bother about the Pamirs; the attempt on the life of the Emperor of Austria; the adoption of an elaborate programme by Mr. Gladstone's followers, including measures for the payment of Members of Parliament, Rural Reforms, Local Option, Disestablishment of the Church of Scotland, and reform of the House of Lords—(a very good programme this for the Liberals to appeal to the country upon—from, of course, a Conservative point of view.) But far more sensational, and far-reaching in effect in at least one case, than any of these, was the announcement of the deaths, within twenty-four hours of one another, of the Right Honourable W. H. Smith, Mr. Parnell, Sir John Pope Hennessy and Sir James Robert Longden. Then again we have Lord Salisbury's reply to the Porte's note regarding the passage of the Dardanells; the acceptance by Mr. Balfour of the leadership of his party in the House of Commons; the election of Mr. John Redmond as leader of the Parnellite party; Mr. Chamberlain's attack on Mr. Gladstone; and last, but not least, the disclosures that are almost daily being made regarding the existing distress in Russia, and the apparent indifference of the Czar thereto. Of course, there have been very many other incidents; some of them requiring exceedingly delicate manipulation, to occupy public attention during the Recess, and to keep the newspapers well supplied with interesting "copy"; far more interesting, we may add, than the columns of dreary debates, and long spun-out leaders, to which their readers are treated when Parliament is in Session.

• OF THE DEATH OF MR. PARNELL, THE MAIL JUST TO HAND GIVES details, and we already know, from telegrams received, that his death has had quite the reverse effect to that at first anticipated. On •

October 8th, Reuter telegraphed : "A reunion of the Irish party is now regarded as inevitable, with Mr. Dillon as leader." Again, on the same date : "It is stated that a Committee of Safety, consisting of five members of the Irish Parliamentary Party will henceforth manage Irish affairs in Parliament and elsewhere." Then again we are told in the mail papers just received, and bearing date 9th October, that Egyptian Bonds were sold freely on the Stock Exchange, in the belief that the death of Mr. Parnell would strengthen Mr. Gladstone's chance at the general election, and thereby bring about a British retreat from Egypt. This, of course, also pointed to the general belief in the reunion of the Irish party. Amongst those, however, who refused to believe in the reunion of the Irish party was Mr. Chamberlain, and he not only refused to believe in the reunion of the parties, but in the vitality of Parnellism at all. "The Parnellite party is dead," he is reported to have said to an interviewer. "It dies as the Boulanger faction may be said to have died in France, with its leader. Parnellism has existed during the past few months solely because of the strong individuality of Mr. Parnell. It is almost certain that he would have been badly defeated at the general election. The priests were against him : they hold the ruling power in Ireland. If Mr. Parnell ever possessed a chance of restoring himself to the leadership of a united Irish party, it lay in the future. After the introduction of Mr. Gladstone's Home Rule Bill he might have deemed such a measure insufficient and unsatisfactory, and raised a national agitation which would for the moment have conquered priestly influence." But both those who prophesied the reunion of parties, and Mr. Chamberlain who refused to believe in the vitality of Parnellism, have proved to be wrong ; for not only has the separation become even more accentuated and productive of bitterness than before, but the Parnellites have shown themselves to be very much alive to the situation created by the death of their leader. Their first act was to let their opponents know plainly that their presence at the funeral of the man who had, in their opinion, been hounded to death, would not be tolerated ; a hint that was wisely taken, or Donnybrook would probably have been a quakers' meeting to the row that would have ensued. The next step was the issue of a manifesto by the Parnellite members, announcing their determination to uphold the national freedom and to continue to struggle until unity is re-established and an independent Parliamentary party is restored. The manifesto, as we gather from Reuter, further said that the Parnellites can have no fellowship with the seceders, who have disrupted the Irish party, loaded it with calumny, and hounded to death the foremost men of their race. Meanwhile, Mr. John Redmond—an undoubtedly able man who has done his party some service in the past—has been elected the Parnellite leader. But if both parties continue in their present humour for any length of time, they will effectually work out the destiny of Ireland by fulfilling the rôle usually ascribed to a breed of felines hailing exclusively from Kilkenny.

With reference to the anticipated evacuation of Egypt, should Mr. Gladstone again come into power, Sir Lepel Griffin has written a letter to the *Times* in which truth and virulent abuse are pretty equally balanced. Few, however much they might be inclined to agree as to the truth of the strictures passed upon Mr. Gladstone,

(and we regret to say that there is a great deal of truth in them), would attempt to justify the mode of attack chosen by Sir Lepel Griffin. But then Sir Lepel was never noted for exercising very much discretion in matters political. The letter is too long for reproduction here, but we quote a characteristic passage. Referring to "the enemies of England," he writes:—"In their happy dreams they see the restoration of the Grand Old Weathercock who has been consistent in nothing but in betraying the interests of his country. In what quarter of the world has he not abandoned the rights and claims of England, and covered Englishmen with shame and confusion? In what gutter has he not trailed the national flag?"

SOME ATTENTION HAS BEEN GIVEN, IN MILITARY CIRCLES, TO what is called "The Swarm Attack," recently introduced in the manœuvres of the German army. We asked a military friend, upon whose judgment we can depend, to give us his idea of the new system. He writes:—"The new system of attack called "The Swarm Attack" of the German army is a retrogression, which, if carried out in real warfare, must end in defeat with terrible slaughter. Any adopted normal attack formation against troops armed with and trained to the use of the modern rifle requires the following conditions fulfilled:—

- 1st.—It should enable the best use of the rifle to be made at all times, and greatest development of fire to be obtained at the decisive moment.
- 2nd.—It should present the most difficult target to the enemy's fire.
- 3rd.—It should allow of the best use of cover being made until within assaulting distance.
- 4th.—It should afford the greatest mobility possible at all times.
- 5th.—It should give the greatest facility for the transmission of orders at all times.

In "The Swarm Attack" not one of these conditions is fulfilled. Only the front line of men can use their rifles, although all the others must suffer terribly from the fire of the enemy. Cover cannot be taken advantage of, as the German tactician rushes forward these regular and *closely formed* waves of men, which present splendid targets, one behind the other, for the enemy to fire at. Mobility, except in pushing forward, is out of the question. Is it likely that an enemy in preparing his position for defence has forgotten to construct *obstacles* to retain this "Swarm Attack" under close heavy fire? The transmission of orders would not be at all easy under such circumstances. Over 2,000 years ago it was proved that that side won the battle which could bring up a reserve at the last moment, and up to the present day such has almost invariably been the case. It is of the greatest advantage to bring *fresh* men up to dash at your enemy when they are tired and desponding, even if a smaller number; the proper moment must be seized, however. This shows the necessity of keeping supports and reserve as close to the fighting line as *good cover* can be found for them, but in the "Swarm Attack" the successive waves of men are all equally exposed to the enemy's fire from the beginning to the end of the attack, only the front line is able to return that fire, and nothing is so trying to the soldier, so demoralizing, as to be placed in such a position that he can see his comrades dropping around him from fire he cannot reply to.

Our present system of attack is as good a one as has yet been devised with its flank system of re-enforcing. It depends on the troops in the firing line closing in as losses occur, and fresh troops being pushed into the gaps. These reinforcing fresh troops are brought up in organised units and the problem of maintaining control in the firing line is as nearly solved as it is possible to be. It is to be hoped that our Military authorities who are so fond of copying anything and everything German, will let "The Swarm Attack" remain German and only German."

WHEN THE TIME COMES FOR THE EUROPEAN NATIONS TO muster their armies and prepare for war, Germany will not, by any means, stand far down in the list. While her army does not exceed in numbers that of France, in training Germany certainly stands first. Every German is bound to assist in the defence of the fatherland, not merely by the payment of taxes, but by qualifying himself to take his place in the ranks and spill his blood, like any other soldier, when war breaks out. We all recognize the propriety of a free man defending his person, his family and his house from attack; but Germany is the first nation of modern times that has carried this view to its logical conclusion, and organized the whole people in the manner most likely to protect it against assault from all quarters. The burden is heavy, but appears to Germans less grievous than might be imagined, for they have faith in the good which results from their sacrifice; they know that the weight falls on all, rich and poor alike; their fathers consented to it because in that way only could they resist the tyranny of the first Napoleon, and it is not fair for the men of to-day to complain when they remember the wonders they did in the war against Napoleon III. Many grumble at the military rule of the German Kaiser, and not without cause, but no greater mistake can be made than to think that the German people in general are dissatisfied with universal service. To sum up the active war strength of the German army we have the following figures: Officers, 48,122; medical officers, 7,602; miscellaneous officials, 12,957; non-commissioned officers and men, 2,165,950, making a total of 2,234,631, with 439,759 horses, 3,558 field guns and 1,752 siege guns. These figures do not include the 700,000 trained men of the second reserve, called the landstrum, and the railway staff, amounting to about 300,000 men, largely old soldiers.

IT IS THOUGHT IN SOME QUARTERS THAT THE RECENT EVENTS on the Pamir steppes will lead to the appointment of another Commission to re-demarcate the Afghan border. Recently the Pamirs have been traversed by Russian expeditions, prominent among which has been that of Captain Gromtchevski, who during the last two years has not only examined the basin of the Upper Oxus, but has even extended his surveys across the Hindu Kush mountains into the basin of the Indus, exploring regions which were practically unknown even to our own officers. The latest Russian movements consist of an advance across the Pamir of a military force, the commander of which excluded Captain Younghusband and Lieutenant Davison from the Alichur and Little Pamirs. Though the Alichur Pamir, situated north of Lake Victoria, may be supposed to lie within the sphere of Russian influence as defined

in 1872, the Little Pamir is certainly beyond it. The entire region is a bleak and almost unproductive succession of rolling downs between 13,000ft. and 14,000ft. above sea level, but it forms the meeting ground or point of junction of the territories of four Powers—Great Britain, China, Russia and Afghanistan—and this circumstance endows it with a political importance which cannot be overlooked. It may probably be found necessary next year to effect some international survey, and more precise demarcation of the Upper Oxus valley, with a view to avoid future misunderstandings.

ON THE SIXTH INSTANT, REUTER TELEGRAPHIED THE INFORMATION that the new queen of Hawaii was dying, and that the British residents were anxious to secure the control of affairs there, so as to anticipate the United States. We have received no further news since the above date. Lydia Hamakacha Lalinokalani, the queen, alluded to in the telegram, ascended the throne in succession to her late husband but a few months ago. She is not wholly inexperienced in the art of governing, as she had previously acted as regent in the absence of the king, and was, indeed, so acting at the time of his death. Her relationship to the Kamehamehas, the first kings of the United Hawaiian Islands, is through her mother. It is an old native law that legitimacy (or the right to be royal) is derived from the female, and not from the male as in European countries. The present queen is said to be a woman of much strength of character, intellectual, well-read and clever, and it is anticipated that something like a crisis will arise should she die. The independence of the Hawaiian Islands was recognized by the United States in 1829, and again more formally in 1843, and by England, France, and Belgium in 1844. Hayti, too, seems doomed to factional fury and terror, but that is nothing new, as, for the past century, the Republic has been the scene of bloody revolutions with a certain grotesque parody of civilized government. News from the Republic reaches us at somewhat long intervals, and the latest information we have to hand is of the little revolution recently attempted by General Sully-Guerrier. A few months since President Légitime was defeated by General Hippolyte who made himself President and Dictator, and has ruled ever since. On the occasion of the late feast of Corpus Christi he was attending the religious ceremony at the cathedral, when he was told of an insurrection and an assault upon the jail to release political prisoners. What followed is thus related: "The garrison at Port-au-Prince was near the Cathedral, and was despatched promptly by Hippolyte to quell the disturbance. A battle in the streets followed, and the troops of Hippolyte carried the day. Then came the old story of the French terror—a proclamation of Liberty, Equality, and Fraternity, accompanied by the most bloody butchery. If the reports are even partially true, nothing could be more brutal and monstrous. A respectable merchant was sitting on the balcony of his house, and having denied the charge of Hippolyte that he was concealing arms, the Dictator said curtly to his soldiers: "Take him to the courtyard," and he was instantly shot. His nephew is alleged to have been overheard by a spy to call the crime an assassination, and refusing to deny that he said it, the Dictator said, simply, "Shoot him," and the youth was instantly dragged out

and killed. Since the above was reported we have heard very little about Hayti. Of course the present Dictator cannot expect to complete his presidential term of six years. An ordeal so severe and so long drawn out would snap even the hard fibre of a Haitian politician, seasoned though he may have been in a hundred revolutions. Hippolyte will hold on with his bloody hand until another hand, bloodier and stronger, overthrows him.

THE SPEECH OF H. E. THE VICEROY AT THE STATE BANQUET given by the Maharajah of Cashmere on the 24th instant, should effectually "lay the ghost" of the rumours that have recently been circulated to the effect that the Government was resolved to acquire possession of Cashmere, either by purchase or any other means. We give below the most important passage in the speech. H. E. said :—I am, indeed, glad to be able, on this interesting occasion, to assure Your Highness publicly, as I have already done in my private communications, that the Government of India has throughout entertained towards Your Highness and towards the Cashmere State no sentiments other than those of sincere good-will and sympathy, coupled with the earnest desire to assist you in surmounting many difficulties, and in bearing the heavy load of the responsibilities with which you have been confronted. I trust that the assurance, which I am thus able to give your Highness, will dispel once and for ever the mistaken idea that, in its dealings with the Cashmere State, the Government of India harbours, for a moment, any ulterior designs upon its rights and privileges. The connection of the Cashmere State with the Government of India has always been of a specially intimate character. The State owes its very existence to the grant made to your Highness's ancestors in 1846, and upon more than one occasion, in its subsequent history, it has given evidence of its loyalty and attachment to the Government and the Crown. I feel no doubt that the loyalty of the Cashmere State is at the present time entirely above suspicion, and that just as it came forward at the time of the Mutiny as our staunch ally, so, if an opportunity should again arise, the Cashmere troops commanded by Your Highness's brother, Raja Ram Singh, and particularly that portion of them which have been placed under special discipline for the Imperial Service, will be again found ready to take their place by the side of ours. I shall be glad if my visit to Cashmere serves to strengthen and to consolidate the amicable relations by which the State has been bound to the Government of the Queen-Empress." Speeches on State occasions, such as the above, are generally supposed to be couched in language more or less diplomatic, and calculated more to flatter the recipient of the honeyed words, than to denote genuine feeling. But having regard to the many disquieting rumours that have been abroad for a considerable time past, regarding the future of Cashmere, and the designs of the Government of India thereon, it is not surprising that the Viceroy should have seized the opportunity afforded of making an important declaration of policy, which cannot but be reassuring to those immediately interested. There is a ring of sincerity in the speech of the Viceroy, which is too often missing in after-dinner political speeches; but we should not be at all surprised to find that, despite its evident sincerity, the native press will find out something in the speech to cavil at.

THERE IS REASON FOR GREAT DISSATISFACTION WITH THE results attained, so far, in the working of the gold-fields of Siam. Mining ventures in the far East, as in Bengal, have suffered great discredit from the prevailing habit of puffing the wealth of a concession far beyond its powers of realization, and this, in conjunction with the feverish anxiety of Directors to obtain brilliant results in the shortest possible space of time, has too often led to hasty and flimsy methods of work which have ultimately necessitated a far greater expenditure of capital, and loss of time, than would be otherwise required if the work had been allowed to proceed on a regular and less spasmodic system of mining. There has thus been created a wide-founded mistrust of mining speculations amongst the investing public of Siam, who seem to share, in common with their brethren in Bengal, the run of ill-luck that has recently overtaken gold-mining speculators. This distrust, of course, seriously embarrasses legitimate enterprises; and as there is a tendency to make little distinction between unscrupulous and conscientious promoters of mining ventures, the whole industry is being brought into contempt, and regarded with great suspicion. The Bangtapan mines, which have just suspended work, were considered amongst the largest and most important in the far East, and it is considered that the unsatisfactory financial state of the Company's affairs will have a correspondingly unfortunate effect upon the European money markets, making it very difficult, if not almost impossible, in spite of the cheapness of money, to float similar enterprises in Siam.

APEX.



ALCUTTA is beginning to refill, after a period of emptiness, during which our city has seemed a veritable "City of the Dead." Those, however, in search of amusement have had no cause for complaint during the past month. It is either a feast or a famine with us. It is the former just now, for with three theatres in full swing nightly, and a good Variety Company performing at the Permanent Rink, with a whole host of casual entertainments thrown in, none of us are likely to die of *ennui*. Then, in addition to all this, Fillis's capital circus—without doubt the finest we have seen in this country—is announced to open next month, and the energetic advance Agent may be seen ever and anon in the course of his matutinal rambles glancing with pride at the gay posters with which, under his superintendence, our walls and hoardings have been covered. The Company has been greatly strengthened since last season, and a fine manageric has, we learn, been added. Again Miss Valerie Van Tassell, "the Champion Lady Parachutist of the world," is wending her way Calcuttaward. This lady has made ascents and descents all through Australia, Java, China, Japan, Manilla, the Straits Settlements, Burmah, and most of the Native States of India. The last we heard of Miss Van Tassell was from Bombay, where she had just returned from Jamnagar, for the purpose of having a new balloon manufactured, to her own designs. The lady, in addition to her sensational descents, performs some daring feats on the trapeze bar while in mid air.

For the benefit of our up-country readers we intend to give, every month, some account of the companies playing in the city. Of course

nothing like detailed criticism can be attempted, as our space is too limited, but as most companies go on tour from time to time, out-station readers will like to know something about the entertainments they are likely to witness. To commence, then, with Harry Stanley's well-known Operatic Company. We have been much struck with the vast changes for the better that have taken place in this troupe since last we saw them. Of the old members there still remain the Misses Amy Childs, Fanny Stanley and Dolly Childs, together with a number of the lesser lights, while amongst the male artistes, we recognize Liddiard, Driscoll, and the precocious young chip of the old block, whose antics are as amusing as ever. Occasionally—too much occasionally in the opinion of many—the 'Captain' himself takes a turn, and his impersonation of Myles-né-Coppaleen, in the *Colleen Bawn*, never fails to attract a crowded house. Any notice of this Company would be incomplete without a reference to the magnificent costumes in *The Mikado*, all purchased by Mr. Stanley in Japan, and each one accurate in design and material. We have seen many worse dressed and worse staged pieces in some of the leading provincial theatres at home. The Company leave for Bombay on the 1st November, and the universal feeling is one of regret that they are leaving us after so short a season.

At the Theatre Royal the wants of the amusement-seeking public are being catered for by the Hudson Surprise Party. Tommy Hudson has, periodically, brought out an entertainment well worth seeing; and without saying that the present Company is better than many others he has piloted through this country, we can safely say that in point both of excellence and variety, it has not yet been surpassed. When the curtain rises on the well-known 'circle,' we feel at once as though we were with old friends, and prepare ourselves for an evening's enjoyment accordingly. Hudson's popularity does not diminish with time, and he is just as young in appearance and energy as he was when we first knew him eight years ago. Since that time Thomas has entered the bonds of matrimony, and very pleasant bonds they appear to be, for Mrs. Hudson, better known perhaps by her stage name "Miss May Habgood," is one of the most charming and talented pianists we have ever had the pleasure of listening to, and is a very material attraction to the "Party." Of the artistes, Miss Connie Devereux is very good in ballad singing, but in the serio-comic line she is simply excellent, her archness and piquancy being her chief charms, aided by a fine healthy-toned soprano voice. Miss Gerard, too, is another accomplished artiste, and although her voice is not remarkable for strength, she makes up for that little defect in sweetness of tone and distinctness of articulation. To Miss Linton is entrusted the task of questioning the cornermen regarding sundry little doings they would rather have kept dark. She makes a charming and sufficiently saucy Interlocutress. A very talented performer on guitar and banjo is Miss N. Arline, who can make her instruments do anything she pleases, inclusive of gymnastics, in which a baby banjo is made to figure conspicuously. The pantomimic sketches of the Perman's are extremely laughter-provoking. Mr. Nish as step-dancer, comic vocalist, or cornerman, is equally good in either, but step dancing is perhaps his speciality, his steps being very neatly and cleanly marked. Messrs. Carr and Devereux, are both extremely good vocalists, the former possessing

a really fine tenor voice with the requisite knowledge of how to use it. Of course *the* chief attraction is Hudson himself; his well-known talent in anything and everything pertaining to 'Nigger' business is well-known throughout India, and speaks for itself—or will do so to any one willing to pay the modest fee demanded for entrance to the show.

From an artistic point of view Miss Ada Maven's Folly Company, performing at the Opera House, has been most successful. Most of the names on the bills are new to us, but Miss Maven's long experience of an Indian audience appears to have stood her in good stead in the selection she has made. To her also lies the credit of introducing to her Calcutta patrons one of the leading Music Hall singers of the day, whose name has become familiar to most of us by the hundreds of popular songs upon which it appears. Mr. Slade Murray needs no commendation at our hands. The stamp of the London artiste is palpable directly he steps on the stage, and it is quite refreshing to see and listen to him after the attempt at comic singing we are so often inflicted with on the Calcutta boards. The first portion of the entertainment rattles along pleasantly. Messrs. Ryan and Sullivan are fairly good cornermen, while Miss Maven as interlocutress is as good as ever. We were exceedingly pleased with the dancing of the Misses Ryan and Wilson, the latter being specially good, later on in the evening, in her eccentric dance. Sullivan and Silvena are capital; the lightning charges of the former being exceedingly clever; indeed we don't remember having seen anything to beat it. The sketches by the Ryan's are also very clever, both their dancing and singing being received with vociferous recalls. Miss Ada Maven is quite up to her usual form in the class of songs she has almost made her own, and Miss Millic Herbert must be complimented on her vocal efforts; her voice is a rich and powerful one, just suited to the songs she affects. Miss Lena Atkinson is a very clever banjo player. The Company has been drawing fairly good houses, and we trust will continue to do so as long as they remain in Calcutta.

For a pucca London Music Hall entertainment, commend us to the Permanent Rink and Variety Hall, in which a London Company, specially selected and brought out by Mr. Feinbarg, whose enterprise is well-known in Calcutta, is performing. The spacious and well-lighted rink makes a capital music hall, and its acoustic properties are fairly good. Miss Ivy Dale is a serio and ballad vocalist of the real concert-hall type,—saucy and versalite,—but more at home in a comic song than a sentimental ditty; for sentiment is not her *forte*. Miss Daisy Albert is a promising young dancer, and sings a fairly good comic song, while Miss Annie Fuller—when she winks her other eye—is a capital singer of just the kind of songs that take with an audience which takes its *otium cum dignitate* whilst enjoying its music. But the chief attraction to many is Mdlle. Adelina, the daring ariel trapezist, whose feats are simply wonderful. She usually retires after her performance staggering beneath a waggon-load of bouquets. Miss Graham and Mr. Granville in their rendering of duets are also exceptionally good. Mr. Feinbarg, we believe, intends to take his Company on tour a few months hence, their places being filled by a fresh Company from England. The Variety Hall will remain open throughout the year, and will form a most welcome place of resort, in the dull season especially.

CALCUTTA, 29th October 1891.

APEX.

THE INDIAN EMPIRE.

VOL. V, No. 2.—DECEMBER 1891.

A CHRISTMAS CHAT.



CHRISTMAS-TIME—and I give a passing thought to England, home and misery,—and wonder how that autocrat, the weather, is treating the inhabitants of that little sea-washed country, after which our hearts are always yearning, and where we are very uncomfortable and discontented when we return there. Doubtless they are having the proverbial “dirty weather” in the Channel, while cold winds are cutting across the German Ocean, and, in London, there is, I daresay, the usual amount of mud and fog, though the shops are enough to make a woman’s heart and eyes ache with longing; but we can’t have everything, and here there is a sky as blue—as blue—well, I never know what to liken our cold-weather Indian skies to. We hear of women’s eyes as blue as the skies above us, but it is impossible to know what to liken this vast stretch of December colouring to. Then down below me I see roses; any amount of them. You can’t get them growing out in the open air just now *at home*, so let us be thankful for small mercies.

What is Christmas, and why should we all turn foolish at certain periods of the year, and make ourselves ill with more indigestible things than are good for us, while some of us (I mean the worse half of the sex) “put enemies into their mouths, to steal away their brains,” and the generous-minded souls throw away money on things which are bound to be useless to their recipients? Yes, why? Well, it is Christmas time, so let us “eat, drink, and be merry!” They say all the old things are dying out, and even Christmas, which is still kept as a festival, is nothing to be compared to the Christmas-day of “Old England.” Among other ancient customs there was a French one to which the day owes the name of “the day of new clothes,” because those who belonged to the French Court got new cloaks given to them on that day. In Kitchin’s *History of France* we read that “on Christmas eve, 1245, the King (who was Louis XI) bade all the Court be present at early morning mass. At the chapel door, each man received his new cloak, put it on, and went in As the day rose each man saw on his neighbour’s shoulder betokened ‘the crusading vow.’”

There is another custom familiar in our childhood, which is kept up to this day (though it does not concern *us*, but only the youth of

the present generation) that of hanging the stocking at the bedside on Christmas eve, for the coming of the mysterious visitor down the chimney or through the window,—anything, rather than the door; the old man who goes by various names, such as Father Christmas, Santa Claus, or St. Nicholas. The origin of this is a tradition that St. Nicholas, while he lived, used to throw purses of money into the windows of poor maidens to be used by them as marriage portions. What a pity that St. Nicholas has had no successor,—only I am afraid the world of poor maidens has grown too large for the richest of rich and generous saints. Many of us, no doubt, remember childish dreams, or half-fearful awakings during the night, when we have looked round nervously to see if any one was about; and the stocking, half-imagined rather than seen, through the darkness, and the longings for the morning when we felt ourselves entitled to examine it. Like most childish things, they have passed away, those Christmas eve's of long ago, and the stockings of our maturer years are too full of holes, with no one to mend them but ourselves; this, reader, may mean anything you like, it sounds as if it ought to mean something, though I am not sure myself that I know what—but one must be allowed to wander a little at this time of the year. Heavy and indigestible mince-pies, and sticky plum-puddings are answerable for much. Then, do these above-mentioned articles ever taste half so nice now as they used to, and can they be eaten in quantities with impunity as we used to eat them? Ah! no, I am sure not. "Christmas comes but once a year" as old Tusser said about four centuries ago, and I am sure it is just as well.

The Christmas-tree, another pleasure of childhood, is still found in most homes where there are little ones; it is supposed to have originated in Germany, but I read somewhere, the other day, that "such is not the fact. The Christmas-tree is from Egypt, and its origin dates from a period long anterior to the Christian era. The palm tree is known to put forth a branch every month, and a spray of this tree, with twelve shoots on it, was used in Egypt at the time of the winter solstice, as a symbol of the year completed."

Christmas is well-known with our poets and writers, and which of us have never heard the familiar carols sung yearly, or the hymns at morning service in church on Christmas day. The earliest Christmas carol, Bishop Taylor tells us, is the "Gloria in Excelsis," sung by the angels at our Lord's birth, to the shepherds who "kept watch by night."

In 1562 there was a licence granted to one John Tysdale for printing "Certayne Toodly Carowles to be songs to the glory of God" and we know it is a very ancient and worn-out idea that the cock crows all night long on Christmas night, and by its wakefulness and watching dispels all unholy influence; and in Monmouthshires, at a certain place, there is a superstition among the inhabitants concerning a very large salmon in a neighbouring river. Every Christmas morning it is supposed to exhibit itself and allow itself to be touched, but no one would ever dare or dream of capturing it. Carew too tells us in a poem of his that

"Lastly, the Salmon, King of fish,
Fills with good cheer the Christmas dish,

so it was evidently one of the principal dishes at the Christmas dinner in olden times. There is still another animal which is

supposed to exert some influence over this particular period of the year, and that is the deer in Canada. There is an incident mentioned in Howison's "Sketches of Upper Canada," relating how he met an Indian one Christmas eve, when it was a beautiful moonlight midnight, and he was creeping cautiously along, and told him to keep silence, because, as he said, he was watching to see the deer kneel, for it was Christmas night, and it was a superstition with them that all deer fell on their knees, and looked up in worship of "The Great Spirit." One of the old customs that has certainly died out is the wassail-bowl, a mixture made of nutmeg and ale, roasted crabs, or apples, and sugar and toast—

"The browne bowle,
The merry browne bowle,"

as it is called in an old song.

In country places it was the custom to "wassail" the orchards as it was called, so that they should bear you a goodly show of fruit. I can only conclude that this meant making the orchard the scene of their revels, and a good "big drink." The Yule-log still burns merrily in many an English home,—in fact in most homes in England I should say, though perhaps few remember to call it by the old traditional name. It is one of the Christmas luxuries, which we can manage to do without in this part of the world; but alas! the "waits" give us no peace here more than elsewhere. There is always some one with a good pair of lungs, and a lantern, and a hymn-book—that is if memory proves false, as it so often does—to wake the neighbours. And sure enough we shall hear them, for, of course, there is always more than one under our windows. It is a very old, and honoured custom, but it will die out gradually like most things,—more is the pity perhaps,—for the world is really growing too matter-of-fact. Out in this country, Christmas certainly does seem something of a farce. One wants blazing fires, and snow outside, with a robin or two to make it picturesque, with holly and red berries inside the house brightening up the walls, and last, but not least, some mistletoe. But alas! for the maidens of this *very* sunny South, fair or dusky as they may be, there is no mistletoe for them, or if something is produced, which is called so, it is not after all the real English article, though perhaps it may answer the purpose, which I dare say is all that is wanted. Walter Scott said truly when he wrote:

England was merry England when
Old Christmas brought his sports again;
'Twas Christmas broached the mightiest ale,
'Twas Christmas told the merriest tale;
A Christmas gambol oft could cheer
The poor man's heart through half the year.

He wrote thus in the early part of this century, and alas! we have been growing more worldly-wise ever since.

SAGUNA:

(A tale of Native-Christian life.)

(BY RILDA).



IN these latter days of the waning Nineteenth Century,* we hear much of woman's work in the world ;—how she devotes herself to medicine, takes her degrees at the Universities, interests herself in the poor. Now we find India sending a recruit to the great army of women workers. In *Saguna ; a story of Native-Christian life*, we have the first book ever written in English, by an Indian lady ; and this uniqueness alone should commend it to the general reading public, even if it were not full of interest and clever writing.

In *Saguna*, we have a Native-Christian girl telling the tale of her own life, ere she reaches the quiet (?) shores of matrimony. And if a trifle egotistical, and prone to dispute with those who correct her, she is still a very interesting study ; affording English people a good opportunity of learning something of the mind of a Christian Native. One peculiarity, that strikes a reader of this story, is the slightly contemptuous tone adopted in speaking of most of the English Missionaries and ladies with whom *Saguna* comes in contact ; the heroine, making no allowance for the habitual Western reserve of manner, seems frequently to think the Europeans cold and hard, because they do not off-hand make a great favourite of her. In her visit to the English Missionaries at the Christian village, she feels hurt because the young daughter of the house does not immediately accept her as a bosom friend ; and again, at the Boarding School, she feels indignant that some of the English teachers do not instantly understand her nature and befriend her.

If this story be a faithful representation of Native-Christians' impressions about their European teachers, it is a pity that they do not learn to judge their white brethren more leniently—it is a failing of the English to be reserved and hard to win as friends, and the Indians should not deem them unsympathetic, because they cannot quickly unbend from their stiffness.

Another impression, that we derive from the perusal of *Saguna*, is that the teachings of the Gospel have, in many cases, had but little effect upon even the professed followers of Christianity. We hear, in the religious village, of the women jeering at the lady Missionaries' manners, the moment after attending a Bible meeting ; of gossiping and scandal-monging ; of incendiarism ; of drunkenness ; and of spiteful comments upon the stinginess of the Missionaries. We would be led to believe by *Saguna*, that many of the Natives merely adopt the new religion for the sake of the benefits that they

may derive from it—such as money, blankets, clothes, food—if this be so, there is much work for the Missionaries still to do, even among the baptised converts. Even Saguna's belief seems very weak and poor, for we read of her asking herself over and over again, why God afflicted her just when her happiness was so complete, and never being able to find an answer! She did not study her Bible very carefully, apparently, to have forgotten that important text in Hebrews—"Whom the Lord loveth He chasteneth."

One of the most telling parts of the little book under review, is the recital of Harichandra and Rahda's conversion to Christianity; and the language employed throughout this portion is singularly forcible and picturesque, presenting pretty pictures of Brahman life and customs. The well-nigh insurmountable difficulties that confront a Native, who wishes to turn from the darkness of his old religion to the clear light of Christianity, are all truthfully portrayed. The mother's attempt to kill the son, whom erstwhile her chief pride, has by his own will transformed himself into her bitter disgrace; the young wife's indignation at, and abhorrence of, her husband's apostasy; and the discussion with the Shastris, being some of the trials mentioned. A very strong thread of family love runs throughout the pages of this tale of Native life; the girl's veneration for her brother Bhasker, and her love and trust in her elder sister are pleasing instances of Indian affection, whilst, as the other side of the shield, we have shown the stern mother-in-law, and unkind sister and brother.

As the first book ever written by a Native lady, *Saguna* should be read with interest, and be of use in stirring up an emulative spirit in other Indian women, that they may do likewise. Lady Dufferin, in her charming book, has told us a little about Native ladies' life, as she has seen it; but of course a history, fresh from the pen of an Indian woman herself, will always prove more novel and attractive, especially to residents in England, whose ideas of India are, as a rule, very vague and unformed.

In conclusion, we may say that we think a glossary of all the Indian words used would be an improvement to *Saguna*, as it is meant for the enlightenment of English people, whose knowledge of Eastern languages is never extensive.

A SLEEPING BEAUTY.

"Surely it is an Ariadne—
There is dawning womanhood in every line,
But she knows nothing about Naxos."

Ouida (Ariadne.)

PROLOGUE.



HE was an old lady, a stout old lady too, without any traces of that past beauty with which novelists are fond of endowing their old ladies. Just a "homely, kind old body," as her general acquaintances called her, but "the dearest, jolliest old lady in the world," as those who knew her best thought her.

There was nothing particularly remarkable about her, as she sat there gazing into the dying embers, with her feet upon the fender, her plump, white hands clasped loosely in her lap. Old age had made her portly, and whitened the still plentiful hair, which was coiled closely about a small and shapely head. As a girl she had never had scores of admirers like other girls; had never been the *belle* of any ball; had never turned all men's heads, or made women envious; no, but yet she had made a heart or two ache with scarcely knowing it. There always had been something about her, which made all women who knew her well, love her; made little children cling to her, and dogs run up affectionately to her; and made the one or two men yearn for her, with all the strength of their nature. She had never been beautiful, but just a bright-faced bonny girl, with eyes that helped her sweet, loveable disposition, to do the mischief—eyes that "raised the very devil in one," as a man once told her. Yes, the eyes that were gazing into the nearly-spent fire were the only things left belonging to that long past youth. They were just as blue, almost as bright, ever as ready to laugh, in spite of the intervening years of the sorrow and suffering which fall to most women in life; but the once dainty figure, and delicate colouring, and bright sheeny locks—time had touched them all.

"Fifty years ago," that was what she was saying to herself as she sat there alone, thinking, thinking, thinking. Then suddenly she started up, and gave the fire a vigorous thrust with the poker, as if she would fain throw in all the memories that were surging in upon her; but as there are no waters of Lethe in which we can drown our griefs, so there is no fire which will burn our troubles, which come flying back on the swift wings of memory. "Fifty years ago" she said once more with a sigh, which seemed drawn out of her very

heart. She had married, and had known many years of a happy wedded life. There were big, strong men who called her "Mother," and little children, who with their tiny lips tried to say "Granny"; but it was not of them that she was thinking as she sat there in the waning winter's afternoon, not of the husband, the best and kindest of husbands, who had long ago left her for his last earthly resting place; nor of the children she had borne and reared, and loved tenderly; nor of the still younger generation, who gave her back a second youth; no, but of the man she had first met and loved "fifty years ago."

There is an old Greek legend which tells of a men's faithlessness and a woman's broken heart, and which runs thus: Ariadne, the daughter of Minos, king of Crete, loved one Theseus, whom she led out of the Cretan labyrinth, in which he had lost himself, by means of a thread which she gave him. Theseus married her out of gratitude, but when he reached the island of Naxos, he forsook her, and she hung herself. At first sight it may seem that my story can have nothing to do with these remote mythological times and tales, for it all happened in a fair, smiling English county in the Nineteenth Century. It was in "a land of hops, and poppy-mingled corn," in one of the "Gardens of England," that there stood a red-brick, ivy-grown, gabled house, with a green tree-shaded park sweeping up to its very doors and windows; and a rose-covered lodge at the old iron gates, which were surmounted by the traditional and fiery dragons.

It was a summer's scene and a summer's day, with an atmosphere of perfect repose about it—Sunday too, which added to the stillness of everything. Trees stood without a leaf stirring, casting deep shadows on the green, sun-swept sward; the sheep lay dotted here and there, as if exhausted with the heat; a boat lay idle on a lily-covered lake; and most of the windows of the house, which seemed to have no life about it, were closed. A silence almost as deep as that which lay over the castle, in the tale of the Beautiful Princess who slept for a hundred years, seemed to reign over everything in this English home. Suddenly a young man appeared in the landscape; he had wandered into the park through a break in the hedge, where blushing wild-roses and honeysuckle were mixed in hopeless confusion, with pale blackberry blossoms which gave promise of a rich store of fruit later on. Across the soft green grass he walked, scattering the sheep which slunk away at his approach; picking up a twig or two as he went on his way to throw into the lake, disturbing a water-fowl at the same time; past a clump of elms, he sauntered, the sound of his footsteps seemingly rousing a colony of old ancestral rooks out of their afternoon nap, for they commenced chattering on the approach of the stranger, who in another few moments caught sight of a small white gate opening into a miniature wood. Through this he passed, finding himself in a deliciously cool, secluded nest of green trees growing in masses on each side, and meeting overhead, only here and there allowing patches of sunlight to fall on to the path, on which the young man walked, and which wound ever onward, as if there were no end to it.

A little stream rippled along on one side, a bank rose on the other, and beyond and around were trees, nothing but trees. The path

suddenly swerved to the right, and in a hollow where the moss grew thick, and the trees bent and swayed, and swept the ground, a girl lay fast asleep. The young man went a little nearer, with a look of surprise in his eyes and an amused smile on his lips.

"What a pretty child," was his first thought, for her dress was decidedly short, and showed well-shaped legs and dainty feet, and her hair fell in loose masses to her waist, and she was pretty with the prettiness of youth and health and bright colouring; but though Theo. Peveril had seen heaps of beautiful women, for a moment he was deceived into saying to himself, "a veritable Sleeping Beauty." Going still nearer, and kneeling down, with a look of decided enjoyment of the scene on his face, he bent and deliberately touched the sleeper's lips with his own. The girl only stirred, though for a moment a look of semi-bewilderment, semi-fear swept across her face; the kiss had only passed into the dream that she was dreaming, rendering it troubled, but it did not wake her, and she would probably have slept on if a shower of dead leaves had not fallen on her face, making her start up, and sit bolt upright, while she rubbed two lovely dark blue eyes and yawned in a most inelegant fashion. Then, for the first time, she caught sight of the figure of the man who had discreetly retired behind the trunk of a neighbouring tree. At sight of him, the girl jumped up, shook out her dress, and turned rosy red, as she wondered if she had been found asleep.

"I beg your pardon," said the young man coming forward shyly, "I lost my way, and found myself in a park, and then walking on I was tempted to come in here. I am afraid I am trespassing."

"Yes," and the girl smiled, and looked prettier than ever. "And trespassers are prosecuted."

"But you will let me off," he pleaded, wondering how old this apparition could be, and beginning to feel rather ashamed of his recent ungentlemanly behaviour.

She was a tall, slim young thing, and "might be anything between fifteen and twenty, in spite of short frock and long hair," thought the man. He wondered if she were a finished coquette, and had felt his kiss, but meant to ignore it; but he was to find out in time that she had slept on unconscious of it, and that it was another and later kiss, which would wake her out of her happy sleep of girlhood, and open the eyes of her young soul, which would never sleep again. But neither of them knew anything about it then, as they stood there and looked at each other curiously.

"I wonder who you are?" was the man's unspoken thought.

And "I wonder who you are?" was uppermost in the girlish mind.

"My name is Theo. Peveril," at last said the one. "I am staying at the 'Stanton Arms.' Could you show me a way out?"

"Yes," was the shy response. This path leads out into the lane at the back; if you will come I will show you," and she led the way while the other followed. And so they met,—this man of the world, handsome, clever and worldly-wise, and this unsophisticated child of sixteen, who might have been brought up in a convent, as in this Kentish home of hers, by her old maiden-aunt, without a brother or sister, with no knowledge of the world, or men, or books, except such as might be found in her aunt's dry, carefully-chosen library.

That summer's day marked a certain epoch in Efa Stanton's young life, for Theo. Peveril was the first young man of her own social standing, to whom she had ever spoken; had he been ugly, stupid, awkward, she would have gone indoors, into that household of women, for old Miss Stanton kept none but women-servants, and she would have thought a great deal about him, —as it was, alas! he was only too attractive to women in general, for this little lovely soul to forget him in a hurry. Theo. Peveril went back to the inn, and got hold of his talkative old landlady and found out all he wanted to know about the family, whose name was associated with the whole place. Stanton Hall was the great house of the village, with its park and fair gardens and woods, into which he had strayed. The same name swung over the door of the pretty, low, white, rural-looking abode, in which he was very comfortably settled for the present. Stanton Church was the only name by which the sacred edifice was known, and the village itself was supposed to retain the name, as it used to be, 'Stainstone.'

"Why is the church so called?" asked Peveril of old Mrs. Harvey, who was always delighted to show off her knowledge of local subjects.

"Why, sir, why, because it is just as full as it can be of Stantons. Every inch on the old walls is thick with *monuments* to their blessed memory, and they lie in dozens beneath one's feet."

"And you say this old lady and her niece are the last of their race?" continued the man who was thirsting for information.

"Yes, sir, more's the pity. There's that sweet Miss Efa—an unnatural name isn't it, sir? But it was her mother's afore her, and she was a Welsh woman—well as I was saying sir, there she is, a young heiress—for old Miss Barbara, is just about on her last legs—a young heiress with no friends or relations to look after her. 'Lady of the Manor' as they call it, owning the whole of the land round the Stainstone Hill to the end of the village."

"She will marry, I suppose," said the young man languidly, as if he were growing tired of the subject.

"Bless you, sir!" replied the old woman, there ain't none for her to marry here; she is just a baby; and it is beginning to strike me she can't abide mankind, for they do say Miss Barbara has given her a queer notion of them. She was a beauty, she was, and they do say she had thirteen offers; but because she wanted the fourteenth man, she just shut herself up here, and won't have one of the critturs come anear her."

Then she went away to attend to her household duties, and her lodger sat on thinking of many things,—among others, of the sad state of his money matters, of certain troublesome debts, and of beautiful Pen. Dalton, who had half London, with himself, at her feet.

Lady Pen. had left the city, and as this admirer of hers could not follow where she had gone, he had pitched upon this lonely country village, in which to do a little fishing and thinking of her.

That night there was death in the village, and another Stanton was laid to rest among her forefathers, while there was a very lovely little mourner up at Stanton Hall, and down at the inn a man who made up his mind to stay a little longer.

A month after her aunt's death, Efa Stanton felt troubled to think that she could be so happy so soon after her loss, but her life had been one long tranquil slumber in her childhood's home ; fatherless, motherless since her babyhood, brought up rigidly by her aunt, living like the birds and butterflies, she had grown up ; but the slumber could not last for ever. When the Prince who came proved to be young and handsome, he first stole her heart. When her eyes were opened at last, she gave heart and soul, love and herself into his hands with a sweet, and perhaps not unexpected, submission. Yes, the girl knew nothing, suspected nothing, understanding nothing, when Theo. Peveril came day after day, morning after morning, evening after evening ; and when late in a certain twilight hour, at bidding her good-night, he had caught her to him, and pressed the girlish mouth with his own, she drew herself out of his arms, flushed, panting, frightened, yet roused, and *understanding*.

"What have you done?" she cried. "Ah! I forgot. Aunt Bab, she sold me,—she told me,—I did not know then. I understand now. What have you done?"

"Nothing, darling, nothing," said the man trying to draw her to him once more. "I only love you, and want to marry you. And that is the only way I can show you;" and even as he spoke Penelope Dalton with her regal voluptuous beauty rose before him, and he groaned inwardly. She was the woman he loved, here was the child he meant to marry, and Theo. Peveril thought that there were some things in life that were difficult.

"To marry me!" echoed the girlish voice, then more gravely Efa added: "And why do you want to marry me?"

"Because—because—" and the man almost choked "I love you ; but don't you see, Efa, I am very poor, I owe a great deal of money, and you are rich, so I cannot ask you."

"If you love me" said the little heiress shyly, and she was glad that the twilight hid the deepening colour which rushed to her face "you can prove it in one way. I am very rich, I know, everyone tells me so ; I can't help knowing ; the lawyer and doctor, and my old nurse and governess, and Aunt Bab was always telling me, so I can't help knowing ; so Mr. Peveril, let me help you in your trouble, let me pay those debts, but I am too young to marry yet."

A sudden hope sprung up in the young man's heart, though he could hardly help feeling he was something of a villain. "Efa you are a little angel," he cried, "but don't you see I can't take money from you like that ; but if you will promise to marry me, some day,—if in other words you will become engaged to me, I will accept help at these sweet hands," and he kissed them both one after the other. After a moment, Efa consented, but she added, "Don't call me a little angel again, Theo, for Aunt Bab told me men always call women so, but that they are the first to try and pull off their wings."

There was an unconscious sadness in her young voice ; love was already making her feel so old and so wise.

"A saint then" laughingly replied the man. "No, no," said Efa, "they are all dead. I want to live, to live and be happy," and she drew closer to the man.

"You have taught me to love you" she said, as he was once more bidding her good-night, and she put her soft warm arms round his neck, and drew his dark handsome head down to her own fair one "and I shant forget, I shall never forget."

"You need not, child," he replied hastily, feeling a perfect brute, but man-like not attempting to draw back before it was too late.

The Jews had dragged him down so low, and Lady Penelope was so far out of his reach, for she was poor and he was poor, and their love was not strong enough to bear the test of poverty. A year went by, and Theo. Peveril held up his head once more, he had struggled out of his difficulties this time and meant to keep clear of such dangers in the future. His engagement was a well-known fact, and Efa Stanton was in London in charge of his own sister, who was trying "to mould her into shape" as she expressed it. The short frocks were discarded, the long hair arranged in the latest fashion, and every one was trying their best to spoil the little country-girl, without success.

"I did not know life held so much happiness" she said one day to Theo, for life was indeed very bright just then to her, full of pretty things, with the love in her heart which made all things doubly precious; and all that the man thought was "I did not know life could be so miserable," for he thought of Lady Penelope, and there were one or two men who would have given the world to have stood for one moment in his shoes. "Ah! Miss Stanton," said one of them to her one night, as they stopped in the middle of a dance, "do you know what it is to want, want, want, and know you cannot have? It is a horrible thing, it makes one sick of life" and he looked down hungrily down into the girl's upraised eyes,—eyes which at times, as he told her one day, nearly drove him wild with longing.

"No" she told him in reply to his question, "I have all I want," and she gave a sigh of deep happiness. She thought she had all she wanted, but she remembered the man's words one day, not long afterwards, when in her young new-born sorrow, she knew what it was to long for a thing. She remembered the question, and the yearning in the man's voice, and the very notes of the dance-music which filled the room, as well as the sickly scent of the hot-house blossoms near her. For Lady Penelope Dalton was suddenly left a fortune by an old uncle on his death-bed, and she and Theo. Peveril were married one summer's morning in a fashionable London church, while Efa was roaming through the woods around the home which had lately grown so much dearer to her.

And so the world goes on; promises are made and broken; vows uttered which are never meant; man swears and woman believes; and Fate drives us all on, while there is none to help. Or in other words God—for Fate is but the disbeliever's name for the one Supreme Being—disposes, and man gives up in despair; he will not seek for help. We make idols and worship them, and cry like children when we find they are but clay after all.

"Theseus married Ariadne out of gratitude, returned to Naxos and forgot her, and Ariadne hung herself."

Women beg for bread, and have stones flung carelessly to them; they hurt, but they break nothing, not even hearts; and Efa Stanton stayed at home, and lived her sorrow down, and learnt to love the man she married very dearly; but then he was not the Prince who woke her out of her girlhood's sleep; and such is feminine ingratitude, and woman's constancy, that as she sat thinking of many things in her old age, it was not of the husband to whom she had given her all, that she thought, but of the lover of "fifty years ago."

GRETCHEN.

WANTED, A HOUSEMAID.

(BY "RILDA.")

(*Continued.*)

IF it will not be giving you a poor opinion of my heroine's courage and high-spiritedness, I will just whisper to you that she *felt* a *wee* bit miserable and lonely, and inclined to regret this strange step that she had taken at first, but by the time the church bells were ringing for evening service, she had conquered her slight attack of home sickness, and donning her plain straight gown of dark grey that fitted her figure to perfection, she set forth to attend service at one of the well-remembered churches, attracting the admiring glances of the men as she tripped lightly along, for she was a lovely girl with a tall, perfectly proportioned figure, full of grace; a small aristocratic head rippled over with masses of brightest gold hair, a sweet, laughing *wicked* face with delicate complexion, and rich red lips, and a pair of the softest, darkest, brightest grey eyes—eyes that could sparkle with merry mischief, and soften to liquid tenderness.

The next day, removing all her pretty and costly rings from her fingers, and putting on her neat grey with its attendant toque, covered with the same material, Mina sallied forth to make her application for the housemaid's place. The old Dover Road was some distance out of the town proper, and the Carson's house was almost the last on the road. It was a square, two-storied building, with a piece of flower garden in front, through which a path lead up to the front door, which opened on to a hall with a drawing-room on the left hand and the dining-room on the right; the staircase to the upper room started from the back of the dining room and at the back of them, divided only by a passage, were the kitchens and usual servants' quarters. The drawing-rooms, which extended the whole of the left side of the house, looked out upon a square of velvet turf enclosed by laurel bushes and sweet-brier hedges, and at the back of this lawn extended a large fruit and vegetable garden, stocked with pears, apples, currents, strawberries, gooseberries, and other varieties of English fruits.

With eyes sparkling with excitement, Mina walked up to the door that she remembered so well, and rang the bell. Her summons was answered by a page in dark green livery.

"Is your Mistress at home?" she asked in her clear, refined voice, for she could not bring herself to address this common little boy in a Cockney twang.

"Yes, Miss," he answered respectfully; it was very evident that he did not imagine she had come as a suppliant for the housemaid's

place. He was leading her to the drawing-room when Mina stopped him.

"I will stay here," she said, taking a seat in the hall. "Now go and tell your Mistress that a young woman has called about the housemaid's place," and open-eyed with astonishment that this graceful young lady had called with such an object, Bob, the page, departed to do her bidding.

Mrs. Carson, coming down from the upper regions, a short while after, stopped in surprise when she saw lovely Mina awaiting her in the hall.

"How stupid that Bob is!" she exclaimed in vexation. "My page told me that there was a young woman come about the housemaid's place! I don't know how he could have made such a mistake. I must apologise for keeping you waiting so long."

Her surprise was unbounded when from Mina's coral red lips came the answer, with a croad cockney twang.

"Yes'm! and I 'ave come for the 'Ousemaid's place."

"Indeed!" with incredulity, "You don't look like a servant!"

"Oh! please, mum, don't think that! Mr. Reginald allus used to say as 'ow my face would be agin me!"

"And who is Mr. Reginald?"

"Please, mum, he's the person what confirmed me, leastways got me ready."

"Oh! indeed. So you are desirous of obtaining a situation as housemaid with me. Have you ever been in service before?"

"Yes'm! once before in Lonnon, with Missus Weston."

"How long were you with her?"

"Two years, mum."

"Why did you leave her?"

"Cause my 'ealth became bad, mum; the Lonnon fogs 'urt my breathing."

"And what induced you to come to Gravesend, Do you know any one here?" "No, mum, leastways I used to know a young gal what came from Gravesend, she was 'ousemaid at Missus Weston's, same as me."

"I see. Are you honest, industrious, don't drink?" pursued Mrs. Carson, Mina's well sustained cockneyism beginning to dispel the doubts she had entertained at first, and rendering her less chary of asking the usual questions.

Mina flushed slightly at this, it hurt her pride, so she answered wickedly:

"Yes, mum."

"What! you drink?"

"Yes, mum, water!" she could not resist replying.

Taking no notice of this slightly impertinent answer, Mrs. Carson continued—"Are you engaged? You must understand that I do not allow followers."

"Yes, mum,—I walks out with a young man in Lonnon."

"That is all right, so long as he does not live in the town. Now as to salary. I give my housemaids £12 a year."

"Thank you, mum, that would be plenty."

"Very well, you may consider yourself engaged. Give me Mrs. Weston's address though, that I may write and make enquiries about your character; if her reply be unsatisfactory, of course you understand that I shall dismiss you immediately?"

"Yes'm, thank you mum!" answered Mina with a charity bob.

"By-the-bye, what is your name?"

"Phyllis Good, if you please mum."

"Rather a curious name for a servant girl! However let that pass. When will you be able to come to me?"

"To-day, mum, if as how you wish it."

"Very well, come as soon as you can." So making another curtsy, Mina walked away down the garden path, watched by Mrs. Carson, who noted, with misgivings, how pretty the girl looked, with her faultless figure, light, graceful step, and perfectly-fitting dress. "She is a great deal too pretty for a housemaid," was her inward comment. "I should not have engaged her, save that servants seem so extremely difficult to get now-a-days; here we have been without one for over six weeks!"

By twelve o'clock Mina, or Phyllis, as we must call her for a while, returned from the town, accompanied by a porter who was carrying her box. She was shown up to her attic bedroom by the cook, who tried *en route* to sound her as to her former life, but without success; so finding her efforts fruitless, the portly dame quitted her with disgust, and trotted away downstairs, leaving the new servant to change her dress and prepare for the duties of the day.

Soon donning a neat terra-cotta coloured print, with tiny white sprays upon it, and a daintily white apron and coquettish cap, Phyllis wended her way downstairs. She was met at the foot of them by Mrs. Carson, who eyed her dainty apparel with disapproval.

"Oh! that will never do!" she cried. "I cannot allow one of my maids to dress in such a style! You will have to change it or leave my service."

"Oh! please, mum" said Phyllis, with genuine distress in her tones, "please don't be angry, these kind are the only things I have, my last missus was athletic." Mrs. Carson could not refrain from smiling at the ridiculous mistake. "You mean *asthetic*," she corrected, "but how did your mistress being so affect *you*?" "Please, mum, she drew a picture, and said as how all my dresses must be made like it, or else she wouldn't keep me in service."

"All right, if you have no others, you may keep to that style of dress if you like," the mistress answered graciously. She found it difficult to be stern and determined to this new servant of hers, with her lovely flower-face and mass of golden hair. How beautiful she did look in her fanciful dress!

Phyllis thanked her mistress for her kindness and withdrew to the kitchen, where she executed with promptness and neatness the various tasks set her by the cook.

At six o'clock she proceeded to arrange the table for the high tea, —that favourite meal of the English people. The cloth was laid with dainty precision, the spoons and forks polished to mirror-brightness, the tea-set placed with care, a large blue bowl that Phyllis noticed upon the dining-room window seat was filled with red and white roses, culled from some of the back bushes in the garden, and set in the centre of the table, and the preserves arranged in glittering glass bowls, whilst the ham was dressed with pink and white paper. The *toute ensemble* pleased Phyllis' artistic eye when she stood to observe the result of her handiwork. It pleased others beside herself also. Old Mr. Carson coming in, observed to his wife: "It is evident that you

have a housemaid at last, the table looks quite respectable again ;” whilst Ronald, the son and heir, returning from London where he was on business, exclaimed on espying it : “ By Jove ! that’s stunning ; what fairy has been at work ; I have never seen tea looking so tempting before ! ”

“ It is the new housemaid’s doing,” answered his mother. “ I must say she has shown a good deal of taste in her arrangement of the table.”

When Phyllis went in with the teapot, Ronald nearly jumped out of his seat in his surprise ; he certainly had not expected to find the artistic fairy so very beautiful. He hardly took his eyes off her the whole time that she was in the room, and when she had left, he exclaimed : “ My jingo ! I have never seen a more lovely girl. She is a perfect picture ! ”

“ Yes, isn’t she pretty ? ” answered Carrie, who was a typical specimen of one of England’s fresh young maidens ; “ too pretty for a servant in my opinion.”

“ Yes,” echoed her mother. “ Don’t you be falling in love with my pretty housemaid,” she said, half jesting, half in earnest, to her son, “ for I should have to get rid of her if you did, and I have a sincere wish to keep one, who bids fair to be such a treasure.”

“ Never fear, mother, I won’t make an ass of myself, but if you tell me that that girl is as any ordinary servant girl, I don’t believe it ! She was never born to fill a housemaid’s place, I dare swear. She is as perfect a lady in looks as Carrie is, and as for her dress it is a poem in neatness and daintiness, and fits her exquisitely. There’s some mystery about her, I wonder if she can be a Duchess in disguise ? ”

“ Duchesses never speak with such an awful cockney twang,” answered Carrie. “ When Phyllis opens her lips all illusions are dispelled.”

“ Does she really speak like a cockney ? ” said Ronald, disgusted that his pretty little ‘ Duchess,’ romance fell to the ground. “ What a pity ! ” and then they all blushed guiltily as Phyllis entered with the toast.

A week passed quietly by. Phyllis had as yet made no attempt to gain Carrie’s confidence. To have tried to do so thus early would have been dangerous and liable to excite suspicion, so she contented herself with continuing to do her duty diligently, and extracting as much fun out of her strange life as she possibly could. Perhaps if she had not known that at any time she could end her servitude, she would have found the work tedious. As it was, her only trouble lay in having to speak with a cockney twang which jarred upon her nerves each time she used it, and yet she dared not relax her watchfulness over her tongue, even before her compeers of the kitchen-cook and Bob the page.

The Carsons, though well pleased with their new housemaid’s *modus operandi*, were yet considerably puzzled by the girl herself ; it seemed to them most extraordinary that so lovely, artistic and in every way well-bred a girl should speak with such a fearful accent ; it seemed so utterly incongruous. Ronald expressed his belief that this manner of speech was but assumed, but Mrs. Carson and Carrie did not agree with him. They maintained that it would have been impossible for Phyllis to avoid occasionally relapsing

into her ordinary method of speech if the cockneyism were but a disguise. It was soon to be proved to them, however, that Ronald was in the right.

They were sitting in the dining-room one evening, working and reading, when, without the formality of knocking, Phyllis hastily entered the room and addressing Ronald in her natural voice said: "Oh! Sir, do make haste and come into the kitchen! The gas is flaring to such a degree that I am afraid there will be an explosion if it is not extinguished soon!"

Following her quickly, Ronald went to the kitchen, and having reduced the unruly gas to order, returned to the dining-room with a thoughtful look upon his face.

"What is the matter, Ronald?" asked his mother.

"Nothing, only I am very much puzzled," was his answer.

"What is puzzling you?"

"Phyllis, Did you notice how she spoke when she came in to say that the gas was flaring? In as refined a voice as any lady would wish to have! I remember she said the word 'haste' without dropping the 'h,' as she generally does, whilst she said 'kitchen,' instead of 'kitching' as her usual custom is; there is some tremendous mystery about that girl I'm positive, and discover what that mystery is, *I will!*"

True to this determination, Ronald entered upon a course of amateur-detective work. He watched Phyllis whenever he was in the house, examined the outsides of all her letters—he was too honourable to open one of course—dogged her footsteps when she went out, and peeped and pried about the kitchens. At last, after about a fortnight's watching, his patience was rewarded. Looking in at the open kitchen window one night, a curious sight met his eye.

Phyllis stood in the centre of the room, her cap and apron off, reciting, with all the dramatic power that she possessed, the opening stanzas of Scott's 'Lay of the Last Minstrel,' whilst the cook and page sat by the fireplace regarding her with open-eyed astonishment.

Breaking off at the words—

"But when he reached the room of State where she with all her ladies, date——," Phyllis said: "Now I suppose you two don't know who the 'she' referred to is, nor yet where 'Newark's stately towers' are situated? Dear! dear! Really the ignorance of the lower classes is shocking!" she replied, in answer to their denial of any knowledge on either account.

"I will tell you, listen attentively; while I try to teach your extremely young ideas how to shoot. 'She' was a Duchess, the wife of the unfortunate Duke of Monmouth, son of Charles II, and the poor woman's husband was beheaded in 1685 for rebelling against James II. Newark, now a ruined tower, but once a Scottish stronghold, is situated three miles from Selkirk; on the bank of the Yarrow; but there!"—she broke off petulently, "I don't suppose you know where the Yarrow is! It's no use trying to enlighten such ignorance! And yet I don't know but that you ignorant people have the jolliest time of it! It is overpowering sometimes to lie awake in bed and think over all the things one has learnt—Euclid, Algebra, French, German, Physics, Mathematics, what not: I reckon, as our Yankee cousin would say, you don't know Euclid!"

"Lor! No, Miss;" exclaimed her audience simultaneously, unable to avoid giving her that 'Miss'; they saw how far she was above them.

"Ah! No. I conclude not. I wonder if you would like to hear some? No; I suppose not, perhaps you like poetry better?"

"Yes, if you please, Miss, give us the *Poemetry* again," entreated the cook. So Phyllis' next freak was to give them a taste of Edgar Allen Poe—

Open here I flung the shutter,
When with many a fit and flutter,
In there stepped a stately Raven
Of the saintly days of yore;
Not the least obeisance made he,
Not a moment stopped or stayed he;
But with mean of lord or lady,
Perched upon a bust of Pallas
Just above my chamber door—
Perched, and sat, and nothing more!

Dear me! what a fool that man was!" exclaimed Phyllis, with disgust. "Just fancy calling him a poet in the same breath as Scott or Campbell! But hark! there is the dining room bell, I must fly!" and hastily donning her cap and apron, and bestowing a parting injunction upon the wonder-struck cook and Bob not to breath a word to the Master or Mistress about what she had been doing that night, Phyllis departed demurely to answer the summons, which came from Mrs. Carson, who handed her a letter when she entered, saying that Mr. Ronald had just found it in the letter-box, where it had probably been lying since the last post.

"Thank you, mum," said Phyllis, taking her letter and leaving the room, encountering Ronald just as she got outside of the door. "What have you been doing in the dining room, Phyllis?" he asked.

"The Missus rang for me please, sir, to give me a letter, what came by the last post. I think as now its from my young man," she answered with a little giggle. Ronald looked at her in wonder. Could this girl with her cockney twang and letters from 'her young man' be the same as he had seen just a few minutes before in the kitchen, reciting Scott and Edgar Allen Poe, and talking of Mathematics, Euclid, &c.? With his mind one whirl of doubt and perplexity, he entered the dining room, whilst Phyllis escaped upstairs to her bedroom, to peruse, in privacy, the letter which she had just received, and which she recognised as being addressed in Charley's feigned handwriting.

Among other things in his epistle Charley wrote:—

"When do you intend to start the campaign in earnest, Mina? Here you have been away from us over three weeks, and not made the least headway with Carrie as yet. Mother says you must bestir yourself, or else come home." Yes, its rather slow work, commented Phyllis upon the above, but I have been so afraid of awaking Carrie's suspicions by beginning too soon. However, I must really make some move to-morrow.

(To be continued.)

TRUTH IS STRANGER THAN FICTION.



AM no coward, however much my physical composition might belie this assertion. It is true that I have not been blessed with Herculean proportions; and I have oft-times been convinced of this fact in that wretched drawing-room game of "Opinions," when young women can be candid, oh! so ruthlessly candid; for masked with innocence, and protected by numbers, they know it is as well to dive into a haystack in search of a needle as to guess one's victimiser out of a "chucking, bursting, and all-looking-equally-guilty bevy of fair women." How oft have I been forced to linger when foot has itched to dash out of the room; to smile complacently, or force a laugh while burning with rage. How oft have I wished affability and gallantry to the four winds, and the game to the devil, and yet have, always under the mark of dissimulation, had to practise these gentlemanly arts, and allow myself to be made the butt of feminine opinion and feminine ridicule. But now is my time, now the hour, now I shall give full vent to my feelings, and betray on paper what I feared to do in the drawing-room. My statue might liken me to Euclid's straight line, to Gázee Meah's bridegroom—that is, to a long clothed bamboo provided with a tuft of jute on the top representing a bushy head of hair, and to other similar elongations; but a long anticipated wish having been gratified, I have come off, after a slight disappointment, in flying colours "*Sans peur et sans reproche*" a proven hero, a second Chevalier Bayard. The Manipur Expedition has not brought me my distinction, but a humbler one within the limits of this very City. No, my case has not been one of

Man to man, steel to steel;

but an encounter more thrilling, though less hazardous, more terrific, though less deadly, and one that many a Hercules has shown a clear pair of heels to.

Then ears of flesh and blood, list, list, list !
I will a tale unfold whose lightest word
Would harrow up thy soul, freeze thy young blood,
Make thy two eyes, like stars, start from their spheres,
Thy knotted and combined locks to part,
And each particular hair to stand on end
Like quills upon the fretful porcupine

To begin, place me in any other lane of Calcutta in the darkest and blackest flight, and I will roam there without fear. Cast me into a dark, dreary dungeon, and I will lie there unterrified, but save me from that dreadful lane, called Blackburn's Lane, even when the sun shines in all his majesty, and all things wicked and dreadful shun

and fear his light. Take a walk down Blackburn's Lane, and you will soon experience its horrors. So circuitous and serpentine it is, that it is difficult for one to know into what part of the Town it will lead him. Indeed, it is a perfect maze, the geography of which is so deceptive that if you take up a position and, by guess, pitch upon a direction that promises surely to bring you out into Bow Bazar Street, you will on pursuing it discover to your astonishment, after a fair hour's tramp, that you are clean on the road to Chitpur. The geography of this lane is the least part of its horrors, its hovels and their occupants are the chief elements of fear. Bare-bodied Chinamen, with eyes suffused from the effects of opium or drink, which still betray a wicked, deep designing heart, with sallow complexions and wasted limbs, are the only tenants of the dens that abound in this vicinity. Their interiors have a strong air of suspicion about them, and are characteristic of all insanitary abominations; their walls, doors and gates are generally ornamented in a most careless fashion with the hideous forms of devils, and long strips of red paper bearing Chinese letters in gold or deep black crayon. The specimen of Celestials just described may be seen in numbers in their verandahs haughtily jabbering their lingo, or lazily strolling about the place without any fixed aim or purpose at heart; some entering and others emerging from gambling shops and opium-smoking dens; and these haunts to which vice and iniquity of all colours, castes and creeds uninterruptedly repair from the break till the close of day, are all located in Blackburn's Lane and round about. To crown all it was reported that Blackburn's Lane was haunted, and its ghost was described as a figure clothed in pure white (male or female it was unknown), whose skinny face seemed always aglow, and whose mouth occasionally emitted sparks of fire. Whenever it exhibited its hands, a thing which it rarely did, drops of blood fell from them and their appearance was bony and luminous. This mystical being appeared to many, leaving one and all, more or less, with sad recollections of its presence. The fearless devil-me-care sailor, well fortified with spirituous potions of the crudest type, has been known to come to by an instantaneous discharge of the fiery fumes from his dizzy cranium and to dash off with lightning speed in a complete state of consciousness and uncontrollable fright; the never too courageous pariah, of the unreasonable species, has scud, in the approved style of tail between the legs, till his shanks have refused to carry him further; and it is reported that once a strolling Brahmini bull, unmindful of obstacles, furiously charged out of the spot until he came bang up against a lamp-post, and dropped like a stone with his head most scrupulously split into two, at the sight of this demoniacal figure of Blackburn's Lane. Unmindful of these results, I planned an excursion. Not finding any one to join me, I resolved to go alone; but being of a religious turn of mind, armed myself with a phial of holy water and my own unflinching faith. So precisely at 11 o'clock one night I set out, full of courage and hope of unfathoming this mystery of mysteries. It was a dark night, to me it seemed unusually so, in fact the very gas lamps appeared dimmer than ever. I was, on this account, more than once tempted to retrace my steps, but I felt as if a voice urged me on and on, till I found myself, within apparently a very short space of time, in that accursed locality. Not a soul was stirring at this hour; I was perspiring fearfully, and there was nothing

to refresh me, for the air was calm and still. I stood in a state of semi-consciousness for a few moments ; when I felt myself recovering, the first thing that suddenly caught my gaze was a perfect mass of pure white in the distance, then by slow and steady movements it kept approaching me. I was convulsed with fear ; cold drops of perspiration stood on my face ; and chilling sensations went cutting through my frame. I wanted to run, but I could not for love or money. I felt as if I were rivetted to the ground. To my horror after the figure had covered a few paces, its face suddenly peered out perfectly luminous. I had immediate recourse to my little phial with the contents of which I had at first, with trembling hands, sprinkled myself, then the surrounding air, but to no purpose, the devil was proof against such a charm, and it still kept advancing. I could not scream, could not run ; my hair began to stand on ends as if electrified, my blood ran cold, and the sweat, that stood in large beadlike drops on my brow, now began streaming down in torrents. Mechanically as it were my hands were flying up and down, left and right, but the devil was proof against the sign of the cross as well, and kept coming to closer quarters. Soon I lost all consciousness and dropped in a dead faint.

When I felt like recovering, I made an attempt to rise, but in doing so I fell forward on something which,—Oh, horror of horrors ! yelled out a curse, and gave me a most unmerciful kick that actually sent me rolling and tumbling away. It was as dark as pitch, so dark that one could almost cut through it with a razor. Truly thought I, I must be in the infernal regions, and was in an agony of fear. I prayed earnestly and devoutly to my patron saint, and derived some consolation by so doing, and before I had got well accustomed to my novel abode very calmly dropped off. When I awoke with the crow of the cock, where should I find myself—in that most respectable of temporary lodgings, the Lall Bazar lock-up, with a true disciple of Bacchus as my companion. At 11 o'clock A. M., I was very gently dragged before Mr. Rough Handley, the Magistrate. I related my story, it was of no use ; to be found in Blackburn's Lane was enough, so with a fine of Rs. 5 only, and the promise of rigorous imprisonment the next time, I was set at large. When I got home my chums almost laughed themselves into hysterics. I was so exasperated to find that they regarded the whole affair as a capital joke, that I immediately resolved again to face the devil. My tactics, which nothing could induce me to reveal, were somewhat different for this venture. My friends grew curious, but still could not for a moment believe that I was in earnest and made game of me till I actually turned out a couple nights after, my friends' laugh and jokes kept ringing in my ears, and fired me with extra courage. I consequently reached the place of my last experiences in a better frame of mind, and took up my position in a defiant and determined manner, let the worst come to the worst. The sign of the cross and holy water gave way to something more effective on this occasion. True to time, the ghost made its appearance at the old familiar hour ; I allowed it to advance, and when I thought it had reached a respectable distance, and was well within ear shot, I shouted out in a firm clear voice : "Man or spirit declare yourself !" It answered by parting its lips, showing a red flaming mouth. I repeated the question with fierce emphasis. It replied

by presenting its ignited hands from which large drops of blood fell. Gazing steadfastly at my mysterious performer, I slowly withdrew my pistol from its case, fired once into space as a note of warning, and then presented at it. In a moment it was on its knees with its hands imploringly raised up. Emboldened at the result, I ran up to it, unceremoniously jerked off its white sheet, and was agreeably surprised to find that it enveloped a Pigtail Johnny, a lank, shrivelled up, unabstemious specimen of a shrewd deep designing Celestial, well besmeared with a phosphoric paste, holding a thick cigar between his teeth with the lighted end in his mouth, and three short tubes containing some dark red composition firmly between his fingers.

The mystery being solved so far, it later leaked out that he had amassed a small fortune by this clever and well-planned game of his, and by the profits he daily made by the sale of opium and other intoxicants.

THOUGHT AS MOTIVE POWER OF CREATIVE FANCY AND PHANTASMAGORIA.



THOUGHT is father to the man," and few indeed, really would be disposed to incline to the belief that thought, or the sphere of its action, is responsible mainly for the germ of a disease with which a realm of strange conceptions, wonderful and grotesque in themselves, is intimately connected. The province of its empire is called Thoughtland, and is a region of wild extravagance, with wonderful phantasmagoria flitting like a panoramic scene before the observer, conforming to no fixed law of nature, nor controlled by any other agency than that of its own creation. Objects fanciful, strange, weird and eerie are conjured up, each in their turn to give place to others, and these again are displaced by shadowy phantoms betokening an unknown horror, a nameless something which pals the very senses. These indications are often accompanied—although they are equally as often independently produced with sounds in the air—confused and incomprehensible; now weird with articulate whisperings and mutterings; now with music of sweet and plaintive song, alternately increasing and lessening in strength. The air rings with these sounds; they are sometimes here, sometimes there; now close; in a moment far distant. They are undefinable, inexplicable, and *primâ facie* would appear to form the link between the materialistic and spiritualistic manifestations of the present day, which, however, they do not. Now, there are two provinces lying in close proximity to each other, that it is difficult to define their respective limits, and these two provinces are Thoughtland and Dreamland. They are in point of fact of the same expanse; and it is only when each exhibits its characteristic features and displays its contiguity either to one of the two faculties, Reason or Sentiment, that we are in a position to draw something like a line of distinction between the two, and define the conception as emanating from the land of thought or the land of dreams. Thoughtland lies nearer Reason than Sentiment, whereas it is just the reverse in the case of Dreamland, and is therefore proportionally cool. It preserves its *statu quo* until brought into constant activity, when it passes from that stage into various degrees of warmth until it reaches the climax—insanity. Only a few people resembling the Esquimaux, who are wrapped up in their immediate surroundings—the two sexes scarcely discernable at a distance—continue to live within the normal stage. Frosty philosophers, with a non-mercurial fluid instead of blood, registering an equable temperament, a great number of degrees below freezing point in their rigid veins; here and there a strong and tough-minded woman, who, like Lot's wife, has been turned into an icicle by contact with a world which destroyed in her the budding instincts of humanity; a dreadfully

cramped people of frigid propriety all over icicles of excellence, with a shiver of compassion for less cold and inanimate souls, with more heart, than but perhaps, not quite so much, virtue as themselves, these also are the inhabitants of that zone of Thoughtland. On the other hand, warm, gushing natures with nothing solid about them—mere creatures of sympathy, ever melting, yearning, glowing, beaming and generously expending themselves upon their fellow mortals, but in such fashion that the process might be oft repeated and nothing either gained or lost;—enthusiasts, people of sentiment, of sensibility, emotional beings with pretty, winning ways, which do no one else good, but infinite harm to themselves, are denizens of that region of Thoughtland where the real and unreal commingle together indiscriminately, and where the true and the false are barely distinguishable. It is therefore midway where mere fancy is as far off on the one hand, as inflexible fact-mongering stands on the other, that the mind, heart, temper and happiness can find safety. In this region Thoughtland is one of the most healthiest and enjoyable resorts within one's reach, and it is a recruiting ground open to intellects of all orders and capacities, and affords suitable entertainment to each. Thoughtland has sights, sounds and sensations, and persistent constraining and conflicting influences of its own, which work wild havoc with weak heads and wanton and inexperienced wills, unable or unaccustomed to hold a team of sacred faculties—madly carcering among facts and fallacies—sternly in check to guide them clear of obstacles and pitfalls, with no other landmark than prudence, and that all-controlling instinct of right which stands higher than prudence.

As regards sight, the mind's eye is the organ of vision used throughout Thoughtland; and just as the eye of the body sometimes sees objects which have no existence, as illustrated by a cloak hanging on a peg behind the door or on the wall, assuming the shape and figure of an object created by the imagination, so also the eye of the mind not unfrequently conjures up images in the production of which thought has had no conscious share. Now whether an object appearing before the mind's eye has been called up by the will—the will that governs the thinking faculty—or whether it has, so to say, sprung up unbidden, is a question, the solution of which cannot be determined on any general or fixed principle. In the latter case, however, it is a thought spectre, and stands in precisely the same relation to an object of intelligent thought in which unsummoned visions, or uninvoked spirits, appearing to the bodily eye, bear to tangible realities, which the weak-minded folk dread and call ghosts! Again, when thought commences to play the tyrant outside its dominion, it not uncommonly succeeds in enslaving the eye or the ear. Then the confusion is intolerably confounded. Both what appears to the mind's eye as also to the physical organ of sight itself seemingly appears a visual reality, which no doubt it is, but there the realism ends. If this occur only once or twice in a life-time, the sufferer will probably go to the grave with the conviction that he has seen a spirit, and this story will be told with creepy earnestness until some other member of the group reproduces the phenomenon in himself, and then the family will add to its property an hereditary and a veritable ghost, which, for the honour of the house, must be raised at least once a century—

oftner if possible—or the possession will be lost. This is how family ghosts are manufactured. With the aid of coincidences—and coincidences are not unfrequent if sought for—the effect leaves little to be added, and needs only the embellishment of that moss with which time covers up the defects of everything made, done or said long ago, and makes the old good, grand and true. Meanwhile the mental process is not dignified or flattering to folk who do not wish to be taken for crazy while it proceeds.

At other times thought acts more independently, and, with a stroke of its wand, conjures a counterfeit presentment of some individual to which it gives a name. When this feat is performed, it is done with exceeding cleverness, for this monarch of mental imagery is an expert colourist, and with electric speed and photographic fidelity, it takes acme from the fact of a circumstance within its knowledge, and depicts the details of such circumstances vividly. Thought does this sort of thing so frequently that it would be strange, indeed, if a coincidence did not sometimes occur to give the accident the appearance of truth. What the mind's eye—or the mind without an eye—sees is the vision, the pictured thought presented to the mind; and there is no reason to suppose this is anything more or less than the vision consciously present to the central sense, of which the brain is the instrument, when any object or thought engrosses its attention. In brief, it matters nothing to the mind whether the image before it is produced by some external object reflected through the eye of the body, or whether it is called up by the mind itself without any external agency. The reality of the image, or, to put the matter more explicitly, whether there is an external object corresponding to the image is a question which the judgment alone can answer. The domain of thought is a realm in which the elements of this matter-of-fact world have their counterparts in an infinity of pictures capable of being shifted at will, either by the thinkers or by thought, and therefore susceptible of endless combination like the pieces of coloured glass in a kaleidoscope. The same might be said with equal truth of visions and sensations generally. In the first part of this paper reference was made to the impression that possibly might be created of an affinity existing between the thought and the spiritualistic theory, but in any case these two theories must not be confounded, for, however they may tune in in effect, yet it will be allowed that a reasonable difference must necessarily exist between the two. The spiritualistic theory according to Spicis in his work entitled "Facts and Fantasies," T. Bosworth, Regent Street, London, 1853, is explained thus: "The media force is not under the general control of the will, but the mere agent of the unconscious organs, and plays its part automatically as the cerebral organs are affected. The material agent is thus controllable by the peculiar changes that take place on the organs of the brain." It will be admitted that one of the undisputed facts on physiology is that every thought or emotion is accompanied with a change of the motion of the brain. If so, the deduction, therefore, is that a fictitious personality may under peculiar circumstances, quoting the words of contemporary authorities, Roge and Ballau, "be induced in the brain and represented independently of the conscious personality, reason and will of the individual." Again, Wilkinson, another authority on the


subject, writing with reference to Dingleson's "Human Physiology," *re* the reflex or automatic action of the brain, states that "many of our impressions are unconscious, nay, perhaps all through the longer part of their course, though travelling along the cerebral lines." In point of fact the two theories recognise the brain as the central sense from which action proceeds, and though the effects are more or less assimilar, yet it will appear clear that while thought acts on the man through the brain, spiritualism, as it is understood, brings into operation an extraneous power, and acting on the man through the agency of the brain, deadens all his conscious faculties and makes them, for the time being, subject to such extraneous power till the influence lasts.

A word more on the eventuality of the effect of thought. The mind's eye is an untrustworthy organ of sight, roaming perpetually, with restless, inquisitive gaze over Thoughtland, without finding the eye of the body pressed into the service, with the result of bewildering a poor mortal until he knows not whether it were best to believe he really sees what he thinks he sees, or to hold what he sees is only what he thinks. That is the sort of tangle a thought-ridden creature is apt to fall into. It makes him a dazed thinker, the sport of wilful and perhaps wicked, plaguing thoughts ever after.

Thought, moreover, has a habit of dragging certain organs of the body after it into realms where its power is absolute. If permitted to exercise this sway frequently, the action from the moment of thinking adapts itself to the thought independent of the will—it is clear that in such a case a person becomes perfectly oblivious as to the fact whether the will is a consenting party thereto—and people under its influence fall to picking things to pieces, putting unconsidered trifles in their pockets, and generally performing indiscretions, which at first are politely termed eccentricities or crimes according to the rank and position of the offender, and finally assume the tokens of insanity. These votaries at that altar eventually become imbecile, and voluntarily forge for themselves the chains from the impenetrable triple-steel of obliviousness, which consigns them to a living death from which there is no return on this side of the world. At the outset these and similar faults are called follies as the outcome of seemingly good impulses: but whatsoever they may be termed, the sure and safest axiom of conduct in life is not to give way to such fancies nor to indulge in them.

SWEAR EAST; OR, DICK EAST'S BABY.

I.

 HE shadows were creeping fast across Broncton Valley at the close of a hot day in the late summer. Silas Fleming's *Atalanta* was moving as quietly as a shadow, but it went the other way, toward the glowing west. That boat was "the dearest spot of earth" to the captain's wife, and the only place that she had any right to call a home. She spent a part of every day at the tiller, with knitting in hand, and a bit of a sail stretched over her head for an awning. As good as most men at the helm, and a better knitter than the average woman, she could thus turn each moment to account, steering or working, according to the exigencies of canal life.

There was an air of thrift about the boat itself. It was well painted. The little side windows of the stable under the high bow deck were covered with netting to keep out the flies, a few geraniums blossomed happily in kegs and cans, and the deck was clean.

It was while she evened the stitches on her last needle that Mrs. Fleming spoke her mind freely about one of her aquatic neighbours. "She ain't social," she said, with decision, slipping the work back and forth, and looking mechanically to see if she had dropped a stitch—"leastways, not what I call soci-*il*."

Captain Fleming himself was at the stern, and his presence was indicated by clouds of tobacco smoke issuing from a short clay pipe. To these clouds his wife addressed her critical remarks about the unknown "she." It was as near to a conversation as they often came, Silas generally considering his duty done if he listened. It took some mental effort to do that.

Appetizing odours of cookery rose from the cabin beneath, and a fresh young voice repeated a melodious petition to "ring those charming bells." Then the singing ceased, and a light foot came running up the steep little stairway. Mrs. Fleming glanced over her spectacles at a girl whose head now rose above the level of the deck, and said, briefly, "Supper ready?"

"*Most* ready," was the answer; "an' the biscuits is lovely. But what is the matter?" She came up another step, and then another, and moved slowly forward, shading her eyes with her hand as she looked toward the west over a landscape veiled in golded light.

"Matter!" exclaimed Mrs. Fleming. "Well, now I do declare! How sharp you are to see things! Some boats aground, I guess."

Silas started to his feet when the girl spoke, and went quickly to the bow to shout "Jim" with an energy as surprising as it was unnecessary, for Jim had seen the row of stationary boats and stopped his steam in season. The *Atalanta* was moving more slowly even then, and a few moments later she was moored behind the yellow boat with black ribs, which had been just in advance of her all the afternoon.

"Sair' Ann," called her father, "jes look a minit. Young eyes is best. Is't Simkin's boat aground?"

"No; it's Thribbles's, from Pocotaw. Buildin' stone an' sich. Must hev sprung aleak," said Sair' Ann, promptly, her keen sight having caught certain distinguishing marks on the side of the boat, which had swung across the channel as it settled. She knew, and she knew she knew, more about the canal and its population than the Collector of the Port himself. She was ready to give the name of the quarry in this case, and even the quality of the stone. Indeed, it was surprising to hear all the things she knew about that particular boat, till it appeared that the younger Thribbles was what she blushing called "a friend."

The air grew cooler and the light clearer as boat after boat stopped and tied up by the towpath, the ropes wriggling loosely across the dusty path like snakes. Teams browsed about or were taken into their stables. There were shouts and whistles, neighings, songs, and oaths. A town, a Venice, a Rotterdam, had sprung up in a single hour.

"Land sakes!" cried Mrs. Fleming, choosing her exclamation in direct contrast with the circumstances of her life, "we won't get to Peterton afore to-morrow noon. That 'll put you out, father," she added, after a moment's thought.

"Yes, it's bad," Silas said, gloomily. "Let's hev supper. Hurry up there, Sair' Ann."

"All right; in a minit," the girl answered, and disappeared again below.

"Saunders 'll be lookin' for this garden' sass for early market," Mrs. Fleming continued.

"——Saunders! Ain't we never goin' to hev supper?"

"Why, there's Mis' Kennery comin' over here now! Whatever can she want o' me?" was the irrelevant response, while the knitting-needles were thrust in and out of the coarse blue stocking and then into its ball of yarn. "Good-evenin' Mis' Kennery. We seen your boat jest ahead. Silas 'll hev the plank out in a jiffy. Glad to see ye. Come right aboard."

A pleasant deep-toned voice answered "Good-evenin'" from the towpath. "How's all your folks?"

"Fust rate. I'm awful glad to see you." And when the guest was safely on the boat she continued: "Did your left ear burn? I was jest a-sayin' ye warn't social overmuch. Kinder overstepped the truth, didn't I? Supper's ready. Come right down an' hev some. Sair' Ann says the biscuits is lovely."

"Well, I ain't hungry; but I wouldn't keep ye all from eatin'. I'll come an' set down. I'm glad to get a good look at ye once in a while."

Before they had been seated at Sair' Ann's tea-table many minutes, Mrs. Fleming fixed her eyes on her guest's face with frank

curiosity, and said, "You have got somethin' on your mind, Mis' Kennery, an' you won't never enjoy Sair' Ann's biscuits till you peak out."

Mrs. Kennery smiled a little. "You're a smart woman, Mis' Fleming," she said appreciatively. And then she looked down for a moment and seemed to be considering her next words. "I'd like to go up to the Easts' afore dark," she said at last. "Marthey East's dead, you know—died this mornin'—'n' I'd like to see how Mis' Fuddle's gettin' on, an' the baby. It's wonderful 'lucky the boats stuck right here to-night."

"So 'tis; so 'tis. Hev another slice o' this bacon? Sair' Ann eats it reel nice an' thin. Goin' alone?"

"No. That's it. I thought mebbe you'd go along with me."

"Course I would. There's plenty round to wash the dishes an' end to things thout me; an' no one knows what time we'll hev hereabouts."

The two women soon stepped ashore, and walked rapidly along the towpath in the clear yellow light of the early evening after the sun first sank out of sight. All about them the land was parcelled out in fertile squares of green. A rim of violet hills seemed everywhere to hem the valley in, except at one point in the west, where the silver ribbon of the canal found its way out into the wide, wide world again.

The *Atalanta* had just rounded the bend below Jasper's when Ribble's boat went aground, and the prettiest bit of the whole canal lay before the women, to be traversed on their merciful errand.

"I will not deny that I had more in mind," said Mrs. Kennery, they turned off the path, and followed a lane through grain field and meadow land up toward an unpainted house that stood on a bit of rising ground.

"I knowed it," said Mrs. Fleming.

"Fine poplars!" continued Mrs. Kennery, meditatively. "Folks old allers tell where the Easts lived. Reg'lar landmarks, them as; an' always pointin' up like the church steeples. I've watched 'em many a year, every time our boat come this way. Poor Marthey!" and she gave a long, sobbing sigh.

"It might 'a ben worse," remarked Mrs. Fleming, in a consoling tone.

"In course. 'Twa'n't bad at all till Dave East took sick. Hard to 'k 'll never kill a cheerful woman. It takes worry." She broke suddenly, looking up at the closed and quiet home, and then it on earnestly. "Death's almost better'n thinkin' about a trouble an' night till it seems as if the hull world was jes made up o' every thing."

They walked on silently for a few moments.

"It's the swearin' that's most breakin' my heart—the swearin' on the reach of the canal," she finally said, in a low voice, but with distinct enunciation.

Mrs. Fleming turned an astonished face toward her, but there was no mistaking either the words or the earnestness of the speaker. "Swearin'!" she exclaimed. "Why, it don't never trouble me."

"No; in course not." (She was just going to add, "you're used to it," but she caught herself up in time.) "In course not, for you, ben thinin' much about it, I expect."

"No; not much."

"Well, I hev. Widders looks at things dif'runtly. Five sons a growin' up an' only me to look to, *makes* me think."

"That's so!" interjected Mrs. Fleming, with sympathy.

"I knowed you'd say so; you're so feelin'. Old Limber was the man that set me to thinkin' about it. He says the Bronctor, Cañal is the wickedest in the country, an' the swearin' from Simpsonville to Peterport 'd makê the devil turn pale. He never heard nothin' like it, Limber didn't." Then she broke out vehemently "Mis' Flemin', we've got to stand up again it, an' every woman on the boats 'll thank us for it—when it's done."

"We! us!" repeated Mrs. Fleming, in a tone of surprise and alarm.

They had reached the house. On the knob was tied a bit of black stuff, which Mrs. Kennery was forced to grasp in order to get the door open. She did it reluctantly, with lips firmly pressed together, and felt almost as if she were touching the body of the dead woman within. Then they passed through a narrow hall to a back room where there was lamp-light. In the middle of this room was a bed, and there lay Mrs. East's body, properly placed, with rigid limbs, hands folded upon the breast, and a peaceful look upon the face that comforted the two friends who stood gazing at it.

"The fight's over for her. There's no need for her to stand up again anything now," Mrs. Kennery said, with a sigh, as she drew the sheet up again over the dead face.

Her sigh was echoed by the long drawn breath of sleep. Lifting the sheet again, she turned it down farther, and saw a two-year-old child lying asleep by his dead mother. Both women were moved to tears by the sight.

"Jes think. She can't never turn over an' put her arm round the child again," said Mrs. Fleming, as they crossed the room to speak to the deaf old grandmother, who sat by the stove regardless of the summer heat, and, moaning often, rocked her thin feeble body to and fro.

"How d'ye do, Mis' Ruddle?" Mrs. Kennery said, in a kindly tone.

"I'm dyin' o' grief," was the reply.

"There's the puty baby," Mrs. Fleming hastened to say, "what'd become o' him ef *you* died?"

"The Lord only knows."

"But how could you put him *there*?" continued Mrs. Fleming.

"Oh! he won't take no hurt, 'n' I reckoned she'd like it." The women felt as if there were five persons in the room.

"You'll bring him up, Mis' Ruddle," said Mrs. Kennery, comfortingly, "an' he'll be supportin' you when you're old an' feeble."

"Old an' feeble, old an' feeble; *when* I'm old an' feeble," the grandmother repeated, with a kind of irony, "Mebbe he might, though, ef I'd live long enough."

Both women tried to comfort her, and made friendly offers to stay through the night, or till the burial; but she wanted nothing, and saw them go without regret.

Once out again, they breathed more freely, in the soft evening air.

"Can she go on livin' there?" asked Mrs. Fleming.

"I guess not. The farm's sold, an' the house an' garden's mortgaged."

"Why, they'll starve!" exclaimed kind-hearted Mrs. Fleming.

"That jes brings me round to what I was a-tellin' you. I've got a plan—"

They went back slowly, deep in confidential talk. The plan was unfolded. Mrs. Kennery walked up to the *Atlanta*; Mrs. Fleming turned and accompanied Mrs. Kennery back to the *Castor and Pollux*. They finally parted half-way between the boats, with many last words, and each one went on board her floating home in a grave and resolute mood; but Mrs. Fleming felt depressed by her share of the responsibility of the plan, while her friend was all strung up, and too excited for sleep.

The former, however, recounted to her family the condition of the East house and baby and Grandmother Ruddles, but she did not say one word about her friend's great plan. In fact, she had misgivings as she looked at her husband's weather-beaten face, and recalled the pointed and emphatic remarks with which he seasoned his daily conversation and expressed his daily irritability. She feared the undertaking would fail; but no matter. She had given her pledge to stand by Mrs. Kennery; it should be sink or swim, of course, on the canal.

Before midnight it was called along the line of tied-up boats that the steam-pump had come. In another hour Thribbles's boat might be ready to go on again.

Lanterns began to move about; shouts were heard; horses and mules tramped heavily out to their stations on the towpath; ropes tightened; water rippled against the massive bows; boat after boat began to creep forward. They would surely reach Peterton by noon.

II.

"My mother sent me to ask you to meetin' on her boat at seven o'clock to night," called out a little urchin to each member of each boat's crew as they tied up at Peterton next day. Father and son, uncle and nephew; steersman and mule-driver—all were summoned, to their great surprise. Jimmy Kennery gave his messages discreetly, though his discretion was concealed, and he was willing to be thought a stupid boy. He made sure in every case that he was understood; but not one scrap of information could be extracted from him, partly for the good reason that he did not know so very much himself. But he awakened such general curiosity that every man promised to come, and then cudgelled his brain all the rest of the time with guesses about the object of the meeting, not one of which was even warm.

Jimmy went back to tell his mother what boats were in, and what men were on them; and she devoted much consideration to this list, recalling every man's life and present circumstances. Over some she shook her head; others were really pleasing. She believed that many of these men would stand by her, provided she could give the affair exactly the right turn; and her spirits rose with the emergency. If Kennery were only there to help her, was her thought.

At six o'clock she dressed herself neatly in a black gown, crossed a snowy kerchief over her bosom, and fastened it with an old-fash-

ioned hair brooch. Finally, after a little consideration, she put on her bonnet with the widow's cap in it. "It's better," she said to herself, simply.

By half-past six Mrs. Fleming came stumbling wearily over the gang plank, with a great bundle in her arms, which was opened in the cabin, and proved to be the East baby—sleepy, rosy, warm, and sweet. "He's a heavy load," was her only comment. How she had gone after him and brought him to Peteron she could hardly explain herself. It had been like one of the labours of Hercules to a mind accustomed to a simple routine of canal life; but she had accomplished it.

The child was kept down in the cabin out of sight. Mrs. Kennerly had spread out there the simple refreshments which she had decided to offer to her guests. "You can't buy good value for naught," she said, tersely, when her associate remonstrated with her for this extravagance—crackers and cheese, little cakes and early peaches, a bag of "fine cut" tobacco, with a pile of snow-white pipes, and coffee.

This last was simmering already, and its aroma met each man as he stepped on board, and made him feel good-humoured right away. They greeted their hostess with many bows and backward scrapes of the foot and pulls at the forelock, all of which Mrs. Kennerly received with excellent dignity and self-possession.

By five minutes after seven every soul was there, except John Tranahan, who had scorned his invitation, and said some uncomplimentary things about the "prayer-meeting," as he was pleased to call the gathering.

Mrs. Kennerly looked round at her guests from her chosen place on the stern deck. They, in turn, looked at her with a calm steadiness that reminded her suddenly of a flock of sheep. "May I be their leader," was her thought; "but may some One lead me!" The remembrance of a Power outside herself helped her. She needed help. Her heart was beating wildly. Clearly the very moment for her *coup d'état* had come, yet she still hesitated. Then she heard an old friend's voice; it was going on steadily in a genial growl about the damages to Thribbles's boat, and the canal being pretty low, and the amount of traffic by water.

"Nice way," it continued—"nice way this o' hevin' a tea party aboard. Guess I'd like to be in the fashion myself, ef it's all's nice as this, Mis' Kennerly." And Sam Bilberry's kindly face beamed on the listening circle.

"Thank ye, Mr. Bilberry," she responded, while her hand sought the familiar support of the tiller, and she felt her courage coming back again. "I'd somethin' to say to ye all, an' I thought the coffee'd wash it down good ef ye didn't like the taste o' my words at first."

A murmur of "That's so," was heard from various quarters.

"It's to the men as runs on this beat in Broncton Valley I want to talk most particular," she went on; "but I hope any other man 'll take it kindly, as it's meant."

"In course," responded a heavy voice.

"Some o' ye know that Kennerly was a good husband to me, an a square, honest man." Everybody seemed aware of it. "As ye all know my boys—five on 'em—an' good boys too, ef I says it as

shouldn't; an' they've got to work here, an' run our boat, an' make a liven' for us."

"That's so, Mis' Kennery. We're with you so far," said Silas Fleming, who had been a little chilly hitherto because he resented the fact that his wife had been keeping some secret from him, and had mysteriously absented herself from the boat. He thawed out now at the sight of Mrs. Kennery's agitation, for he wasn't the man to be mean to a woman beyond a certain point.

She glanced her thanks at him, and then made a desperate plunge. "Friends, it's the swearin'," she said. "I'll jes say the worst first, then mebber I kin explain." There was a quick stir in her audience, but she didn't dare to let herself know whether it was *pro* or *con*; she just went straight ahead. "Ye'll forgive me, I know, for I've been a-studyin' on this thing a long time; an' the swearin's got sich hold on me 'at I think o' it all day an' dream o' it all night, an' I must speak, or I'll go crazy." A sigh. "Ef I *did* go crazy, I'd surprise ye worse yet. I'd swear, an' swear, an' swear till ye couldn't get no rest." A few grumbles intimated that some might rest and some mightn't. "I'd surprise ye," she repeated, "for I know well every evil word ye say. 'Twas Mr. Limber 'at talked about it. He said this spell o' canallin' was a perfect hell. He never heard no such talkin' any other place not to ekal it. I thought more over it 'cause I had the boys a-grewin' up here, an' I began watchin' an' studyin', an' I've larn't all the badness. 'Tis awful, men, when ye get to notice it." She paused a few seconds. They could see her hand tremble as it still rested on the tiller. Before any one spoke, she began again: "Would ye give it up? Couldn't ye stop cussin' an' swearin' jes as ye'd stop fightin'?" She suddenly raised her head, and glanced over the inexpressive faces before her with a smile that was both sweet and winning. "I *know* ye could; an' it'd help us all, an' give us a cleaner score."

"No; I'll be. Couldn't do it no way," exclaimed one old fellow. The younger men exchanged glances, and thrust their hands deep into their trousers pockets.

"What reelt good 'd it do, anyhow?" sang out a voice from the crowd.

"Good?" echoed Mrs. Kennery. "I'll tell ye." Then going to the companionway, she called down, "Mis' Flemin'."

"I'll bring him in a minit," was the strange reply; and Mrs. Fleming came slowly up the stairs, carrying the East baby in her arms. With a half-explanatory, half-apologetic glance at her husband, she walked at once to Mrs. Kennery's side, and stood their quietly; an object of the deepest interest to all.

"That's Dave East's child," Mrs. Kennery said. "You 'ain't forgot Dave East?"

He was well remembered.

"Last winter he died, an' now his widder is lyin' unburied yet, an' this child an' his grandmother is left without a cent except the old furnishin's. He's a nice boy, an' I loved his mother well."

The child, aware perhaps that every eye was on him, began to kick and wriggle so that Mrs. Fleming was glad to put him down in front of her on the deck.

"Now, ef the men on this boat," continued the advocate, "'d undertake to bring up that child an' feed the poor old woman, they'd

bring a b'fessin' on the hull Broncton Canal." Here the men shuffled their feet uneasily. "An' I know where they could get the money fur it."

This created a sensation. If she had said that the planking of the deck was lined with gold dollars, she couldn't have surprised them more. They begged her to tell, and they made foolish guesses; and some tried to make friends with the baby, who crawled a few feet, and then sat up again to look at them all solemnly.

Finally Silas Fleming said, bluntly. "This 'ain't got nothin' to do with the swearin'."

"You've hit the nail on the point, Mr. Flemin', for you're jes exactly wrong, an' that's within one o' bein' right. Here's my plan. Ef you'll all try, an' *reely* try, to give up swearin' an' 'll agree to pay down damages ev'ry time you forgit, Mis' Flemin' an' me'll see to 'bringin' up this blessed child on them damages, an' take care o' th' old granny till she dies; 'twon't be long, *that* won't."

"Now, Mis' Kennery, you know sech money wouldn't pay for his bread an' milk," said one of the boys.

"Never you fear, Jem Turple. I wouldn't wonder but it 'd support a hull family. Yours, for instance."

Jim shrank back amid derisive laughter. No girl had yet been found who was willing to become Mrs. Turple, though Jim, always looking out for *the* one, paid his court to every likely lass.

"What's the damages, mother?" asked one of the Kennery's, a strong-limbed lad with a pleasant face.

"A shillin' a dozen," was the terse reply.

"Bless my soul!" ejaculated Mr. Fleming, falling into deep thought, from which he presently roused himself to remark. "That's jes about a penny apiece. That's about the size of it."

Every one had some comment to make, mostly in jest, and they swore over simple sentences in serene and friendly fashion. Indeed they were so absorbed in expressing their views that Mrs. Kennery had to rap on the deck to secure their attention again.

"Ef you'd agreed on this fur a law, an' it 'd begun to work, I'd 'a' had twenty-three cents by this time, an' that might 'a' fed 'em both fur one day." She looked anxiously round upon her audience. They were not ill-disposed, but yet not won over; that she well knew. She must speak to them again, more earnestly, more convincingly, with God's help. "Mates," she began, in a voice that showed the depth of her feeling, "I've lived among you fifteen years, an' I never asked a favour until now; but I've done many a thing to help in time o' need." Her voice faltered.

Some one called out, "So you hev, Mis' Kennery," reassuringly; and she raised her head, and thanked the speaker with a smile.

"So now—" she was continuing, when the little fellow, who was used as a lever to raise these men above their own level, decided to act for himself and plead his own cause. In perfect unconsciousness of all that was at stake, he wanted to make friends with somebody, and suddenly straightened himself up and began to toddle toward Sam Bilberry, in the centre of the group. As he reached the old sailor's foot he lost his balance and tumbled forward, striking his head on the Bilberry shin, a bone with no softness in it. Every man expected him to cry; but he never thought of such a thing. He just grasped at the loose trousers to steady himself, and landed

against old Sam in a vague, aimless sort of a way, and looked up sweetly, and said, "Baby dood, mamma."

Who could help thinking of the East farm and its poplar-trees, of the old feeble old grandmother watching there by her dead, and of the mother who would be buried on the morrow in one of those quiet lonely resting-places—God's acre—in the corner of a green and fertile field?

The child's special plea was made, and his cause was won; for, after a moment's silence, there arose a murmur of consent. Bilberry had him in his arms at once, and carried him about from one to another, that the men might get acquainted with him.

The tears that came into Mrs. Kennery's eyes rolled unheeded down her cheeks: she only smiled and said: "Come down now, friends, an' hev a cup o' coffee, an' smoke a pipe over it," leading the way to the cabin herself. The room was soon filled, and the first-comers were first served. Order appeared to be Heaven's first law as well at a canal boat supper as elsewhere.

All was quickly done, and man after man came on deck again to saunter about with a clean new pipe in his mouth, and enjoy the sweet evening air. The best of the men had the air of making a great resolution, and the rest were uncertain, uneasy, and looking for some leader. They would be in the majority, but they hadn't much choice as to sides.

When they were assembled again on deck, Sam Bilberry went up to Mrs. Kennery and said that, by her leave, they would hold a bit of a meeting at the bow; and then they all went forward, and gathered together there like a swarm of bees. While they puffed away at their pipes they kept an eye on Bilberry, and were evidently ready to listen to any thing *he* was ready to say.

But he was slow of speech, and it required several clearings of the throat and scratchings of the head and pulls at the collar before he finally began, "Well, mates."

"Old Bilberry looks awful sheepish," whispered a mischief-loving fellow.

"Sheepish, eh?" retorted Bilberry, catching the words. "Sheepish, ye said? I hev brains enough to know when I'm put in a hole, ef that's what ye mean. Fact is, mates, I wish I could say *no* to a woman, an' yet I don' know as I want to. "T's trew there's a deal o' peace in a good honest swear; an' again I'd get some comfort out o' payin' a few cents fur that purty baby o' East's ef I *did* swear."

Some one asserted that it wouldn't kill them to swear when they wanted to, and bring up the baby too; but Bilberry asserted that that wouldn't suit *him* altogether. He felt himself as if the two didn't go together.

"It's interferin' with our liberties as individooals," said a fellow with a steely blue eye and a thick complexion.

"Then keep yer liberties an' put down her pipe, will ye? What in thunder air ye doin' here anyway, Larry eatin' the widder's supper, an' then kickin'?"

Larry mumbled something apologetic in reply. "Didn't mean much," he said.

"Glad to hear it," growled Bilberry, only half appeased, but wholly restored to his masterful ways by his legitimate wrath.

"Ye see, men, when a woman's got the right on her side 'tain't

easy to say *no*; an' this request is for somethin', we'd oughter be proud to do. Say we vote it."

"All right," was the general sentiment.

"Larry," said the old man, turning to the object of his brief wrath, "you're the boy to say it. You're more used to sech ways."

Soothed and reinstated in his own good graces, Larry rose. Thrusting both hands into his trousers pockets, he gave his body a swing that seemed to draw each person within the circle of his address, and began: "It is moved—"

"*An'* seconded," interjected Bilberry.

"No, Mr. Bilberry; not yet. The secondin' always comes in *second* in meetin's."

It was Bilberry's turn to subside.

"It is moved that the canallers on this 'ere Broncton Canal stop swearin', an' a fine is fixed at the rate of a shillin' a dozen. All the fines is to be paid to Mis' Kennery or Mis' Flemin', for the benefit of the orphan, Dave East's boy. All in—"

"Seconded," Bilberry broke in.

Mr. Bilberry, *will* ye hev the goodness to wait a minit?"

"But ye've finished the motion. 'Tis time to second."

"Go ahead, then, an' second."

Chorus of "Go ahead, Bilberry."

"All right. I second Larry Peck's move. Now I've gone ahead. Come on, the rest o' ye."

"All in favor of this motion say 'aye,'" continued Larry.

And every man said, "aye, aye."

"That's done, then, Mr. Bilberry. The motion's carried. And now let's hev another look at the youngster."

"All right. Hooray!"

Mrs. Kennery brought him herself, and stood there with moist eyes, but a brave and cheerful countenance.

"'Tis all right, Mis' Kennery. We're a-goin' to do it. You bet your life we'll do it," said Bilberry. "But, mates, when'll we begin? Let's settle that."

Consenting minds appointed sunrise of the following day; and the men seemed to feel pretty well satisfied with themselves as they went away in groups of twos and threes in the fast-gathering darkness. The two elderly men lingered to have a last word with their hostess—Limber and Sam Bilberry.

The former said, genially, "I allers knowed you was a good woman, Mis' Kennery; an' now you're a helpin' in great need."

She looked at him in surprise.

"One fellor won't chip in nahow," he went on, after a moment's reflection; "but I guess he's the only one."

"Who's that?"

"John Tranahan, in course. He's the one as said he wouldn't be found dead to this meetin'."

"Hev to do without him, mother," said Fleming, who had been carried quite out of his every-day experience, and stimulated to a partisanship that might almost be called *offensive*.

"Pity to give up any," responded his wife.

"By Jehoshaphat! you needn't do it!" exclaimed Bilberry.

"There I go. Hev to pay ahead, Mis' Kennery," he said, flashing

up under his weather-beaten skin. "But I've got a pull 'on John Tranahan, an' I'll try it ef you men'll come along an' see fair play."

"Don't go for to fight, Mr. Bilberry," said Mrs. Fleming.

"Tain't fists, ma'am, it's heads an' tongues; an' the meetin' 'll go an' find him afore bedtime."

"I'll go with ye," said Limber; "but I'd like powerful well to know what kind o' a pull ye've got *afore* I go."

"Well, I shouldn't want it known on the canal, but I'll tell you folks." Here he bent over and whispered as if he were a teacher of elocution, and meant to be heard a quarter of a mile away, "*I know his number!*" He then left the boat, accompanied by Limber, Fleming, and the two oldest Kennery's to persuade Tranahan by methods that could hardly fail.

When the sun rose next morning there was a new order of things in Broncton Valley, yet life seemed to be going on as usual.

Boats crept along with the speed of the fabled tortoise, and the motive power, far in advance, looked like a big awkward spider at the end of long and fine-spun thread.

The *Castor and Pollux* had to be loaded for its homeward trip, and could not get away from Peterton in those early hours. The Kennery's worked like bees till the day was far advanced; but at last the black mules, Nig and Nag, were brought ashore, and the boat was ready to start.

Much freight had brought prosperity to the boats on this canal; prosperity led the boats to buy good animals, and the best of all possessions were mules. Now the mule that is not as slow and apathetic as it is tough and strong is still to be discovered, and the man who is not impatient when he has a mule to drive is yet to be found also. This fact would of itself account for much of the profanity which troubled the women. Of course the mules knew English only "as she was spoke" in their hearing, and it might have been foreseen that they would miss their accustomed stimulant.

Now it appeared that those particular mules might have heard something of the great reform meeting of the night before. There they stood in their stable while their mistress made her famous speech and the East baby achieved his conquest; how could they help hearing some of the talk? It seemed wonderfully like it, for they had evidently organized a rebellion of their own. If Mrs. Kennery and Mrs. Fleming were going to stand up against swearing, *they* meant to stand up against *not* swearing. They walked out like mules that had some fancied grievance, and were ready to pick a quarrel with any one. George Kennery was the driver, and when he spoke to them they should have started the boat firmly and slowly, as they well knew how. But they wouldn't. George whacked them well, but they said they didn't care for that; they had something on their minds.

A crowd soon collected. Some backed the driver, some favored the mules. All were diverted by the unwonted sight of any difficulty with Mrs. Kennery's mules. That good woman appeared herself upon the towpath, and tried apples and persuasion with no better result, so George began to belabor the brutes again. It was a lucky thing for the Kennery's property that old Limber came up just then. He looked at the four long, expressive black ears, turned back at a most undesirable angle; at the drooping flanks already seamed with

the lines of George's whip ; and at the tails, which gave little switches down at the tips.

"Poor critturs!" he said, aloud. "Seem to hev some trouble, Mis' Kennery," he continued, politely.

"Whatever can we do?" was her response. "Time's money, an' we should hev gone two mile a'ready."

"Pity!" ejaculated Limber, with pretended sympathy.

"I'll pay two shillin' to any one as starts 'em an' doesn't injure 'em any way," continued Mrs. Kennery, looking at the crowd with a troubled face.

"Twist their ears," "No; their tails," "Build a fire," "Fetch another team," were some of the suggestions offered by the crowd; but all in vain. Limber's thin, nervous hands snatched the lines from George. They were gathered up in a way that even the mules recognized as professional and meaning business, while Limber began to swear in a steady and experienced and convincing manner. The boat must go. He meant what he said, and they understood him so. The ears flopped forward, each mule threw his weight against the collar, and made the first step in advance. They rubbed together as they leaned sidewise in the united effort to start the dead weight; up rose the muscles under the skin, one steady strain, and the mass began to yield—the boat moved.

Limber turned to Mrs. Kennery, who stood beside him with a most distressed expression on her care-worn face. "Eh?" he said.

"Yes," she replied. "Thank you; but it's awful."

"Not as bad as a good parrot," he retorted.

"Yes, it's worse; but I'll keep my word, an' pay the two shillin'." She drew out a much-used purse.

"Thank ye kindly," said Limber; "'tis jes what I owe fur swearin' under them new rules. I'll pay it in fur the boy." There was loud laughter from the crowd, but Limber continued: "Ev'ry little helps, ye know. *Some one* had to swear a deal this fust day, jes fur bread an' milk; *an' the mules knowed it*. See?"

It was arranged that little East should live beside the canal that was to care for him. His home was to be at Dan Jasper's. Dan kept the lock, and kept also one of those stores which seem to be necessary appendages of locks, that the passing boatman may supply his simple needs. Dan's wife really had it in charge, and she amiably added little East and his grandmother to her already varied cares as soon as Mrs. Ruddles could complete her arrangements for moving from the farm.

It was a good plan. As the men went up and down with the boats they saw the living reminder of their pledge—the pensioner on their bounty. Soon the child learned to run out to meet every boat, and have a talk with the men as they waited to get through in turn. These were the only moments when they could see him. In the lock all was activity, and once out they must all hurry on. But they had many a good time with the boy while they were waiting. He was nobody's fool, but a clever child, who would grow up to be a credit to Broncton Canal.

The fines were paid over to Mrs. Dan, who kept a mysterious account of them. Funds poured in for a few days for the men were honest about it. Then came a lessening of the sums; which state, of virtue Mrs. Kennery rather regretted, though she heaped reproach-

es on her own head for such an inconsistency. Money became tight and Mrs. Dan complained that she couldn't rightly feed and clothe them, let alone any thought of profit.

"What 'll we do about it, Mis' Kennery? Hev a swearin' bee?"

Mrs. Kennery shook her head reprovingly. But it was evident that in inverse ratio to the moral tone of the canallers would be the physical tone of the land; and after his old grandmother had peacefully slept herself out of life, the self-constituted guardians began to talk about having a subscription to eke out the boy's support, a charge must suffer no neglect.

Many a dime and nickel did the little fellow carry in to Mrs. Dan, no fine at all, but a free gift. He never asked for a penny for himself, and every fellow felt proud of that.

The chief council which directed all matters pertaining to Sammy's welfare thought he ought to be vaccinated and baptized—"Leastways other folks done it fur *their* children"—and a deputation, consisting of Mrs. Kennery and her oldest son and the Flemings, went to the handsomest church in Peterton to gain some insight into these things.

"It don't cost nothin' to find out somethin'," Mrs. Fleming said discreetly. And so it came to pass that the little group entered the rectory of the aforesaid church to state these needs. Vaccinating came first in order of conversation. The minister didn't do it, he said; but after he had told them to take the boy to Dr. Stickwell, the way was cleared for the greater matter.

In this Mrs. Kennery was the spokeswoman, and a good, clear, case it was which she laid before his Reverence.

There are ministers and ministers, as is widely known; this one had a generous fund of sympathy, as a well as sense of humour that seemed to shed a side light on the every-day occurrences of a quiet town. To him Mrs. Kennery poured out her heart—all their hearts. He heard of her philanthropic move on the canal, of the boy's parentage and temperament, the peculiar nature of his support, and the general improvement on the beat. The story ended with the triumphant statement that little East "had fell in the canal three times, an' wa'n't afraid o' nothin'."

"Three times," repeated Mr. Johnson, playfully. "He's all ready for immersion, then."

Four faces fell. "Is that the way you do it?" Mrs. Kennery asked.

"No; but I *would* do it that way if you wished."

"N--o; I guess not," said Mr. Fleming, briskly. "We get enough o' that every day."

How *do* you do it? Mrs. Fleming plucked up courage to ask.

Mr. Johnson smiled. "Come in and *see how* we do it," he said. "Two children are to be baptized at the afternoon service."

"All right," replied Mr. Fleming.

An' we wanted to talk to you about the name," said Mrs. Kennery. "We thought to make a moniment out o' that name, an' call him *Swear*."

What! exclaimed Mr. Johnson, in horror.

"Yes, sir; *Swear*—jest fur a middle name, ye know. Samooel's the fust name an' East's the last; an' we thought we'd kindly tuck in *Swear*, right in the middle, fur a reminder."

Mr. Johnson's hand was raised to his face to insure the absolute resistance of every muscle to a tendency to smile. "Do you know the nature of an oath, Mr.—Mr.—"

"Flemin'," suggested that gentleman, helpfully. "Well, I orter."

Mebbe the minister thinks we aint's in solemn earnest," said Mrs. Kenrery. "We've ben a-thinkin' he'd be a kind o' cov'nant, like the Bible, an' when he was a-growin' up he'd remember what we'd done for him, an' he'd do his part, an' do us credit; so you see tain't no or nuthin' o' that kind."

"I see," said the good man.

"Don't ye think, sir, ye can stand the hull thing—name an' baptizin' an' all?"

Mr. Johnson thought he could.

The person who looked ahead was Sair' Ann. Crowned by her domestic triumphs and surrounded by relations, who *always* thought that "Sair' Ann's biscuits was lovely," she looked forward with happy anticipation to the possession of a man of her own, and a boat of their own, and all the joys incident thereto.

An imagination thus projected into the future was equally ready to "forecast the years" for all; and the experiences of the canal child gave her many a good opportunity. Not the least of these was the significant middle name. Its meaning seemed to draw the boy into closer relation to the older people, and to perpetuate the pledge; but Sair' Ann flatly refused to consider it *au sérieux*.

"He'll forget it all, ma," she often said. "Nobody'll ever know what S. S. East's hull name is, leastways what the second S stands for. Tribbles says so."

"In course that settles it, Sair' Ann," Mrs. Fleming would say with tranquil sarcasm. "But there ain't a soul for a hundred mile around 'at don't know about Samooel Swear East."

"That's the way *now*, ma; but bimeby folks won't know."

"Seems as if they would," persisted Mrs. Fleming."

But Sair' Ann continued: "An' like enough Samooel S. East'll call one o' his boys *Swear East*, jes' by itself; an' his wife'll tell people it's an old fam'ly name."

SCIENCE NOTE.

IS THE EARTH IN DANGER?



Of course, danger—if danger there be—may be anticipated as proceeding either from within the earth itself or from without it, and the question arises at the outset: What is there in the centre of our planet? Well, it has been imagined that the earth is, in reality, a hollow sphere, lighted by the two subterranean planets, Pluto and Proserpine, and even peopled with plants and animals. The celebrated Halley published a paper in the *Philosophical Transactions* on "The Structure of the Internal Parts of the Earth and the Concave Habited Arch of the Shell!" Holberg, the Norwegian dramatist, embodied a quaint satire upon the inhabitants of the upper earth in a scientific romance respecting the physical scenery, people, and institutions which had been discovered on a journey into the nether world. The more notorious Captain Symmes repeatedly invited Sir Humphry Davy and Baron Humboldt to undertake a subterranean expedition to the interior regions through a cavernous opening which he maintained was to be found near the North Pole. The ancients believed the centre of the earth to be the abode of the spirits assigned to Hades. Lord Lytton has, in his famous novel, "The Coming Race," described the inhabitants of an imaginary nether world, and Jules Verne has published an account of a supposititious journey into the interior of the earth—both writers giving their vote in favour of the theory of the hollowness of our globe.

On the other hand, by far the greater number of philosophers, scientists, and writers have entertained the idea that the interior of the earth is a molten mass—a fiery conglomeration. To begin with, the younger Pliny attributed earthquakes and volcanoes to the presence of vast igneous forces imprisoned in the earth like smothered embers or cavernous furnaces. Plato also believed in an internal lake of fire. Robert Hooke went so far as to explain the catastrophe of Sodom and Gomorrah, and even the deluge itself, by earthquakes, which he referred to subterranean action. Then again Dr. Daubeny ascribed the phenomena of volcanic eruptions and earthquakes to the action of water rushing underground from neighbouring seas, and chemically combining with metallic masses in the caverns of the earth. Dr. Mantell grouped together volcanic eruptions, abysmal fissures, hot springs, new islands, and water spouts as connected expressions of the same terrestrial force, due alike to the reaction of the interior heat of the globe upon its surface. Saussure, Daniell, Marcet, De la Rive, Reich, and other thermometricians announced the general conclusion that the temperature of the earth increases as we descend, at the rate of about one degree in every fifty feet—so rapidly indeed that at the centre the hardest rocks and metals would be melted in an instant. Though it is generally admitted by scientists that the central fire of the earth is cooling, still the process is so gradual that the circumstance is not infrequently left entirely out of consideration. The great French naturalist Buffon represented the earth as a blazing fragment of the sun, struck off by a comet and left to whirl and cool for ages, and Cordier, Fourier, and Humboldt described our planet as a liquid ball of glowing metal and lava gradually cooling and shrinking within a solid crust.



